THE OPEN SPACES

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THE OPEN SPACES

From a photograph by Mrs. Edward A. Ayer

The Mohave Desert

THE OPEN SPACES

INCIDENTS OF NIGHTS AND DAYS
UNDER THE BLUE SKY

BY

JOHN C. VAN DYKE

AUTHOR OF "THE DESERT," "THE MOUNTAIN," "THE OPAL SEA,"
"THE GRAND CANYON," ETC.

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PREFACE—DEDICATION

TO

MURIEL MOORE

A SCHOOLBOY, with shining morning face, creeping unwillingly to school, vainly striving to repeat declensions, fretted by the prospect of the day's confinement, and high overhead the honk of wild geese from the upper sky to fire his eye and set his fancy flying. Against the blue of spring, with broad wings beating back the southern breeze, the clamoring wedge was moving north by west. How strong the wings! How sure the flight! How keen the homing sense guiding through that vast expanse of air and sky! Where away was the gray leader calling them? Was the long course set for the prairie pools and linked waterways of Minnesota or the unknown lakes of British America? And what a lure in that far cry, sounding clarion-like from the sky-space, calling down to the boy in the city street:

"Follow! Oh, follow!
Follow by stream and hollow!
Follow to No Man's Land!"

A boy's will is the wind's will, and the thoughts of youth are long, long thoughts. But the boy's

thought then seemed merely a fancy—a dream of traversing the unknown wilderness, of canoeing with trappers through wild-rice lakes and down strange rivers, of riding with Indians and shooting big game on the prairies. The colored map of his school geography was vague beyond the line of the Mississippi. Back from the river there was a huge tract marked "Unexplored." That was the outermost rim of discovery. How should he ever follow the flock into that land of far horizons?

But, strange to say, the day-dreams of the boy became realities. Sooner than he could imagine they came to pass—came true. As a boy he was taken to the great Northwest; he followed in canoes the far waterways of the wild geese, he hunted the forests, rode the plains, and slept by the prairie pool. Again and again, through boyhood and manhood, he came and went in the mountains, the Bad Lands, the buffalo ranges, the deserts. The wind's will was scarcely more free than the boy's will and the man's will.

Alas! for the changes brought in by civilization! The prairie has been ribbed by the plough, the forest has fallen before the axe, the waterways have become turbid with commerce, even the deserts have been invaded, and the borderland has slowly slipped back to the inaccessible

barrens of the north or the bare ranges of the south. Yet the whilom schoolboy still sees that wilderness of his youth—sees it as clearly as he hears the long-ago honk of the gray leader calling from the blue sky of spring. The love and the lure of the wild have remained with him, and now, after many years, he is writing for you some happenings of those early days—living over again in memory the wonder of his lost youth.

The record is not wholly of early years nor is it chronological or consecutive, for many of the incidents and observations occurred during latter-day revisitings. But linked together these happenings form a trail—my own trail in the open. The country through which it leads has become more or less familiar to so many that I need not describe it; but the life that it once knew has largely disappeared, and it is that I would conjure up for you. Therefore will you retrace with me the now dim pathway? Will you follow, follow, by stream and hollow, follow to No Man's Land?

JOHN C. VAN DYKE.

RUTGERS COLLEGE, 1922.

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THE OPEN SPACES

CHAPTER I

SLEEPING OUT

Almost everything creeps to cover at night—the birds to their boughs, the beasts to their lairs, and man to his bolted house. The night-prowlers—those with specially gifted eyes or noses—are only a few out of the many. The rank and file as soon as the sun has gone down begin to look about for shelter. A fear of the dark drives them into hiding.

Even when man ventures to "sleep out," he does so with a canvas tent over him. His forefathers were less luxurious and got on with a lean-to thatched with boughs or a tepee wrapped with birch-bark or deerskins. But generations, time out of mind, have been afraid to sleep under the night sky unprotected. Some scrap of cover, some coign of seclusion, has always been deemed necessary. It might turn cold or wet, or the moon might shine in one's face and warp the features, or perchance the heavens might fall.

Besides, there was vision of the pestilence that walketh in darkness and ravening wolves that prey by night.

In the country to the east of the Mississippi perhaps the tent is necessary. For instance, in the Adirondack or the Maine woods, one is always liable to be deluged by rain, and the ground is never entirely dry even in summer. It is not a good camping country, notwithstanding the thousands of tent-pegs driven there every year. Aside from the dampness, it is usually camping in a forest—something that is nearly as unsatisfactory as sleeping in a cave. Much romance and some poetry have been extracted out of sleeping under the pines with the flickering lights of the camp-fire thrown up on the red trunks and spreading boughs. Many a dawn I have watched the sprays of pine overhead grow into form and color with the coming light, while blue jays and Douglas squirrels chattered and barked at me from neighboring trees. It is an idyllic experience in the open forests of California, especially if you have company with you; but sleeping in the Eastern woods alone, or even in the northern Pacific woods, is dreary enough. The stars and the sky and the night wind are shut out. You hardly

know when daylight comes or goes, for you cannot see the rising or the setting sun, and you can make no certainty of the weather, for you cannot see the clouds. A forest is usually good hunting country for deer and bear, but it is not a comfortable place for the camper. He is too "cabined, cribbed, confined."

Quite different from the forests are the great prairies and uplands of Dakota, Montana, and Wyoming. There the tent is quite superfluous, because during the long summer rainfall is infrequent. You rest in the open, and by night or day can see around you in an immense ring. Cries in the night, the whimper of wolves, the grazing of horses, the sound of approaching hoofs, the rush of wind, the roll of thunder, can be rightly located and judged. You rest easily because you know what is going on about you. And if sleep does not come there are the filmy clouds of the cirrus, the constellations slowly moving to the west, the Milky Way powdered with infinite groupings of stars. What a never-ending source of wonder! And not entirely without practical uses to the camper. How many times under the open sky have I wakened and known the time of night by the position of certain bright

stars! How many times have I ridden the open prairies at night laying my course by the North Star, or getting other bearings by the blazing splendor of Arcturus!

Any sort of a tent, in any country, isolates you from the world without. One of the unique scares of my life came to me in the foot-hills of the Big Horn Mountains, where one autumn I was camping under canvas with a companion. We had been hunting and the carcass of a deer was hanging from a small pinyon some fifty yards from the camp-fire. One night, sleeping in our figure-A tent with the door-flap pegged down, we were awakened by the catlike scream or yowl of a mountain-lion. Had we been in the open we might have seen him and perhaps taken a shot at him. As it was, we sat up in our blankets and wondered what to do. While poised there momentarily in the darkness the tent-flap was suddenly burst open by some large beast that sprang directly upon me. In warding him off I threw out both hands before me and they struck coarse hair. For a moment my heart stopped beating. Then the animal began to growl and I recognized my friend's setter dog. He had been sleeping outside by the burnt-out camp-fire, and, fright-

ened by the cry, had dashed against the tent-flap and landed directly upon me. The mountain-lion had been inspecting the carcass of our deer in the pinyon. He could have dragged away or eaten everything in the camp for all that we could have known of him sleeping in our canvas tent.

When in a strange land it behooves one always to sleep like a jack-rabbit—that is, with one eye open. A white tent in the moonlight, that every Indian or bear or wolf can recognize as easily as a camp-fire, is merely an advertisement of your presence. It puts blinders on your eyes and cotton in your ears, so that anything can sneak upon you. There may be no great danger threatening—usually there is none at all—but when you are alone in the wilderness you need all your senses about you, and each one of them acutely attuned. One night in Montana, camping near the edge of the Crow Indian Reservation, I was much concerned by the fact that several Indians, riding across country in the night, had discovered our camp. They halted some distance away and I could hear them talking among themselves. Our tent (taken along to please my companion) had betrayed us. The result was that I spent a

bad night, rifle in hand, holding guard over our horse-bunch a quarter of a mile down the river. Indians do not enjoy being shot up in a fight any more than palefaces, but they delight in horse-stealing. Stampeding a camper's horses at night is their great play, for the enjoyment of which they will run some risk.

A similar experience, but with the advantage on my side, happened to me many years ago on the Mexican border, below Arivaca. An old trail leading over into Sonora crossed there, and near the boundary-line was a deserted adobe hut. Not far from the hut was a hole in the ground with some green water in it, called, by a stretch of the imagination, a "well." I was camped there because of the water, but I had no tent; neither did I sleep in the hut nor near the well. I stretched out my blankets in some thin greasewood and slept with my ear to the ground, knowing quite well that the border passes were runways of the marauder. In the middle of the night I was wakened by the sound of galloping horses and men's voices. Down from the north came five riders, their horses blowing, and they themselves muttering and cursing over some mishap. When they saw the hut they stopped and came together

as though for a council of war. Then they deployed, surrounded the hut at a distance, and began helloing at the supposed occupant. Getting no answer, they fired two shots into the adobe.

Still without response they dismounted, approached, and finally found the hut deserted. There was some more violent swearing, and then they began a search for the water-hole, which they evidently knew was somewhere on the premises. My presence they never suspected, and I should have remained unseen had it not been for my horse, picketed a quarter of a mile beyond me. A horse can always be relied upon to get his owner into trouble, and my beast at this juncture let out a long, loud neigh. He had heard or winded the other horses and his social instincts were aroused. The men—they evidently were horse-thieves and were riding hard to get over the border and away from some sheriff's posse—pricked up their ears at once. One of them started in the direction of the staked horse, and unfortunately his way led my way. At thirty yards distance I called to him to stop. He jumped as though he had been shot at, and caught at his six-shooter. I quickly informed him that

if he drew his gun I would shoot. He desisted. What did he want? Water for their horses. Where was the well? I told him. Who was I and what was I doing there? Merely studying desert geology. Who were they?—that was more important. No reply. They passed on down into Mexico, I watching them off the premises with my rifle on my knee.

The moral of that tale is that had I been camped down in a foolish tent they could have located me instantly and shot me through the canvas. As it was, I had the advantage and could have bagged all five of them before they could have gotten into action. Of course such incidents are rare. One sleeps soundly night after night in the open, without even the whir of a night-hawk or the yelp of a coyote to ruffle his repose. I know of no safer place to sleep. Yet while in the Southwest I was frequently asked if I were not afraid to sleep alone in the desert. I always answered with another question: "Afraid of what?" There is much greater danger in the city street. The only danger is from men, not beasts, and men are very scarce in the desert. Well, suppose you became ill? But you do not get ill under the blue sky. It is in the town and in the hospital

that people sicken and die. But suppose something should bite you—a rattlesnake, for instance? Yes, but suppose at home you fell down the porch steps and fractured your skull? You are far more likely to meet with trouble on the porch than to be bitten by a rattlesnake.

Occasionally in sleeping out one gets wet in summer showers, but that is a slight matter. The piece of tarpaulin, one half of which goes under you and the other half over you, and in which you wrap your blankets when riding, can usually be relied upon to shed the brunt of any short-lived storm. You lie on your back with your knees up, making something tent-shaped of the tarpaulin, and the water drains off. If it is a long storm with much rainfall the water will eventually get under you, and, if you have been foolish enough to make your bed in a hollow instead of on a slope, the water will get in at you. There is nothing for it but to get up and seek such shelter as rock or bush or tree will afford. But again such happenings are rare. The great camping country of the plains is arid and the conditions of sleeping out are ideal.

That does not mean that the camper can dismiss all care with the coming of the dark. Every

one who sleeps out does so with both ears listening, and in his soundest sleep is partly conscious of keeping watch. Indians and horse-thieves do not bother him, for their coming or going is very infrequent; but he has to look out for his own outfit. Now the most important part of an outfit is the horse-bunch. You can never afford to be left afoot in unsettled country by your horses slipping away from you. And all the plains horses know how to cut and run if the opportunity offers. Every one of them has a partner to whom he is devoted and from whom he is not willingly separated. If the partners are in camp together they are generally content, but look out if you take one of them away with you and leave the other behind. The one with you, at the first opportunity, will take his back track to join his partner and you will have great difficulty in catching him. A horse will sometimes go for seventy or a hundred miles hunting for his partner without stopping to eat or drink.

Aside from these getaways there are occasional scares that must be reckoned with. In urban or suburban territory a horse's sense of sight or smell or hearing is very dull and almost negligible. He sees only a saddle or a wagon and smells

only a measure of oats. But in the open the mustang or plains horse has very acute senses. And, being naturally something of a fool, he is always suspicious. If thirty-six hours before a bear has passed through where he is picketed, he soon catches the scent and is not to be quieted. Around and around on his picket-pin he will go hour after hour, head up and tail up, stopping every few minutes to snort at the air. If he is not double hoppled he will pull the pin and run. Any moving animal is likely to frighten a picketed horse—an elk, a mountain-lion, a gray wolf. And during a lightning-storm or a driving rain he may break away and get to timber, even if indisposed to make a long run of it.

And sometimes the camp supplies need watching. Coyotes are always sneaking about a camp, nosing for something to eat, picking up refuse; and occasionally at night, if everything is very quiet, they will slip in and raid the grub-box or chew off a bit of greasy strap from a saddle, or jump for any provender that may be hanging in bags from trees. They are a very clever family, the coyote tribe, and can get what they want without getting into trouble quite as readily as the fox family.

Even bears are fairly good camp-thieves, and in some of the national parks they are now very bold in their entrances and exits. In the Yellowstone Park some twenty years ago a bear in camp one night broke into the bacon-box and was making a good meal when I interrupted him with an axe. Guns were not allowed in the park, and an axe was my only weapon. It was sufficient. The bear started on a run down a decline and through a meadow where I had seven horses picketed. The horses saw him coming, pulled their picket-pins, and ran for fifteen miles through the timber. It was four o'clock the next afternoon when I found them, bunched together under a slide of rock, high up on a mountain-side.

After a week or more in camp all the night sounds become familiar to you, and only a few of them are disturbing. The whimper of coyotes just before daylight means nothing. They are usually harmless hoodlums, and oftentimes are good sentinels for you. As long as they keep up their whimpering, there is no dangerous prowler about; but their sudden silence and sneaking away may mean that a bear or a mountain-lion has come on the scene. The gray wolf has a deep

bass bay, but you seldom hear it near the camp. He is up in the mountains hustling mountain-sheep across a rock slide, or far away over the hills with brother wolves running a mule-deer in relays. He is usually too careful of his skin to be seen of a camper. Bears with their grunting woof are in the same class. The garbage-can bears of the national parks are not typical of those in the wild. Even the big silver-tip in the Rocky Mountain country has to be sought out and run down. He never hunts you. As for the grizzly, he is no more. His habitat was the Coast Range of California, but the gun, the trap, and poison have done for him.

The more frequent night sounds about a camp are of horses grazing, stamping, snorting, or whinnying, the call of belated quail, the whir of bats, or the hoot of owls. At certain times of the year when birds are migrating, there will be the honk of geese, the far sky-call of crane, perhaps the whistle of curlew, or the pipe of golden plovers moving in flocks. It is not easy to see bird flights by night unless the flocks are flying very low. When there is a full moon you occasionally get strings of ducks or brant in silhouette as they cross the moon's disk, reminding you perhaps of

some Japanese print by Okio or Hiroshigé; but usually the night fliers are not seen.

This is especially true of the smaller birds that seem to move north or south by night, perhaps for protection from the hawks. The swallows, warblers, thrushes, larks, bobolinks, tanagers migrate in large straggling flocks, and keep up an incessant chirping and twittering, but they are too high up to be made out. The larger birds usually move by day. Some of them, like the hawks, have no fear of enemies, and go by overhead with great swiftness. So far as I have observed, they make no sound and attract no attention.

But, except in periods of migration, birds do not usually fly or move around at night. The majority of the bird family goes to bed early with its head tucked under its wing. Only the killers, such as the owls or bats, remain out. And about the only bird sound one hears in the dark, except the hooting of owls, is the dismal note of the poor-will. He is the same bird as the whippoorwill of the Mississippi Valley, though in the Rocky Mountain region he shortens his call. But not his persistence. He keeps reiterating "poor-will" for hours at a time, until the maddened camper would gladly wring his neck.

The smaller animals, the mice, rats, and weasels, move about continuously after dark; and every camper knows that the rabbits begin to stir just before sunset, and that in the early dawn they are settling themselves for the day in some thin bush or bunch of grass. Riding by moonlight I have often seen the jack-rabbits feeding on dry grass, dashing off occasionally as in play, capering in circles, or jumping straight up in the air. I have never, at any time, caught one of them sleeping or nodding or with his eyes shut. I doubt very much if the jack-rabbit ever sleeps, just as I am certain that he never drinks, and that he can live an indefinite time on nothing moister than dry grass. On the desert the water ration of every animal is reduced to a minimum, and the ground-squirrels, kangaroo rats, and gophers are in the category with the jack-rabbit in getting on without it. As for the prairie-dog, he, too, is denied water, but he gets moisture from grass and roots. Any of the desert rodents will eat green herbage when they can find it, but a few of them can flourish without it.

The reptile contingent need hardly be reckoned with at night, though every new camper has his vague apprehension of snakes crawling over him

in the dark. In Montana one night I was awakened by a feeling similar to some one's finger being drawn slowly along my back-bone. I was sleeping on the ground, rolled in blankets Indian fashion; but I could feel that moving something through the blankets very plainly. I knew instinctively that it was a snake, and lay still for a moment wondering whether I should roll over on him and try to crush him or roll away from him. I decided, rather spasmodically, that valor did not require a Laokcoön contest and that I had better roll away from him. How I got started I hardly knew, but once in action I did not stop until I was ten feet away. He rattled, but as it was too dark to see him, I again decided that valor did not call for a fight. I crept carefully back, got hold of a corner of my tarpaulin and jerked it out from under the snake. I then moved some hundred yards away, leaving him to rattle himself quiet. Again, a few evenings after, and camped farther on, while going out in the dark with an axe and a picket-pin to stake a horse, I caught the rattle of a snake at the foot of a sage-bush. I chopped into the bush until the rattle stopped, but could not see the snake.

With these two exceptions—and I think they

were exceptional—I have never known snakes to move about at night. They have not a night eye and are particularly averse to chilly evening winds. Basking in the sun by day and creeping into a hole or under a rock by night is their usual habit. Lizards, horned toads, Gila monsters are not different. As for trap-door spiders, tarantulas, scorpions, they are not great travellers. They usually have holes in the sand or sod, or under a rock, and the camper has to look sharply if he sees them at all. Occasionally one creeps into the blankets or gets into a shoe or a hat, but that is because the camper has settled down in the wrong place, with blankets or clothing tossed atop of a spider settlement or a scorpion's nest.

Animals and their movements or cries by night are things that the camper eventually accepts as he does the crackle of his camp-fire or the low growl of his dog. They are passing events. A more lasting impression is that which he sees above him as he lies on his back—the night sky. He never quite gets over the wonder of the great arch and that vast belt made up of infinite stars called the Milky Way. The stars seem studded as in a broad band or architectural rib that reaches

up and under the huge purple vault. One is at first attracted by the blaze of the more prominent stars, the green-white Sirius, the blue Vega, the orange Betelgeuse, the pearly yellow Capella. If the air is very thick they will seem to twinkle; if you are in high regions where the air is thin they will appear quite still, shining and splendid. Their color in high altitudes becomes more apparent, and you perhaps marvel over the whiteness of Sirius which indicates youth, or the orange of Betelgeuse which points to age and decline. Ah! the wonder of those great sun-stars, their magnitude, their heat and light, their swift flight through space, and the enormous pull of their gravity!

But you are clutching at fragments, details of the pattern. The bright stars merely happen to be those near our world. The bowl of the Dipper contains no light within the square perceptible to the unaided eye, but the telescope has discovered over a thousand stars in that space, and the larger the telescope the more stars there are to appear. The Milky Way that looks as though strewn with diamond-dust is made up of millions of stars. The newer telescopes make of that portion of the heavens a bright shining field, caused

by countless far-away stars whose lights crowd together on the plate. What is the splendor of Aldebaran or Arcturus to this stupendous glimpse of the infinite—this bringing forward of countless suns from the depths of space! And, wonder upon wonder, they are all moving at terrific paces in enormous orbits! The entire belt of the Milky Way is supposed to be moving as a mass through space. Whither? Whence the measureless energy that started or keeps such colossal bodies in motion? And where and what are we in this mighty scheme of things? Are we anything more than petty animalculæ clinging to a cold discarded fragment of a sun? You turn over in your blankets and listen to the yap of a distant coyote. Along that Milky Way lies madness.

Down from the sky comes the coolness of the upper-air stratum. It is almost a nightly occurrence in the arid regions, even in the heat of summer, for the temperature to fall forty or fifty degrees. You drop off to sleep with a warm breeze blowing over you. By midnight you wake up and begin feeling about for blankets. Perhaps before dawn you are burrowing in the sand to get warm. What has become of the one hundred and twenty degrees Fahrenheit that baked you

at noonday? The heat has radiated upward and the cold has descended to take its place.

What a clean cold! How scentless, saltless, stainless! It is the purest air in the world—this air which people at one time considered deadly, and which even those of to-day avoid by creeping into a house or a tent. Ah! how you sleep! And how unconcernedly you breathe in the oxygen of the blue—nature's great restorer! Even the warm air that blows immediately after dusk has some of this life-giving power. You feel it streaming over your face and through your hair and it has the soothing effect of fairy fingers—or perhaps some loved woman's hands that once had the power to bring you sleep.

What a strange feeling, sleeping under the wide sky, that you belong only to the universe. You are back to your habitat, to your original environment, to your native heritage. With that feeling you snuggle down in your blankets content to let ambitions slip and the glory of the world pass you by. The honk of the wild goose, calling from the upper space, has for you more understanding and the stars of the sky depth more lure. At last you are free. You are at home in the infinite, and your possessions, your government, your

people dwindle away into needle-points of insignificance. Danger? Sleep on serenely! Danger lies within the pale of civilization, not in the wilderness.

CHAPTER II

RIDING THE OPEN

THERE never was greater joy for the nature-lover than riding into the unknown. Astride of a good plains horse, in unexplored country—not knowing what was coming over the next divide, or what lay in the far valley, or what new world would be disclosed from the top of yonder mountain—the lure of the unexpected lent eagerness to the ride. The nipping air of early morning, the long shafts of the rising sun, the great arch of the shifting blue overhead, the far vistas of table-lands and mountains all added to your zest. You were off and away. Nothing could stop you.

Something of your pleasure depended upon your horse. In Indian days, when unexplored country lay almost everywhere west of the Mississippi, the riding was not always enjoyable because the Indian cayuse that one rode was a combination of fool and devil. He was a wild mustang of the plains that had been run down, lassoed, brutally broken in a few days, and left to nurse his enmity forever after. And he never failed to

keep that enmity alive. Every time you lassoed him there was a fight. When bridled with a bit of rawhide or rope, and saddled with nothing more than a flap of buffalo-skin, there was another fight. He glared at you, with ears laid back and lips half bared, as though he would gladly eat you. Mounting him was a feat of vaulting which sometimes landed you on his back and sometimes did not. If you landed rightly, it was always a question of whether you would stay. The born impulse of the cayuse was to buck. He curved his back and went into the air. When he came down it was with stiff legs and a sharp back-bone that made you wish you were elsewhere. Two or three jounces of this kind and you were not sorry to get back to earth. Riding a bucking cow-pony, with a deep-seated saddle in which one could get a stirrup hold, was not such a difficult affair; but keeping one's place on a barebacked Indian pony was quite another performance.

The cayuse was never to be trusted at any time. You might ride him for hours or days or months, but he would always be waiting his time and planning trouble for you. One of his dearest tricks was to rear up on his hind legs, with any sharp little pull on the reins, and fall over back-

ward. The main object of that play was to catch you under him and squeeze the life out of you. Doubtless some of the violent rearing was due to mouth tenderness, and some of the falling backward to clumsiness; but bad intention was at the root of things.

In swimming a river the same rearing and falling over backward were carried out when the cayuse could feel his hind feet on the bottom; but his commoner trick in river-swimming was to get his head and neck down flat on the water and roll over with you. Nothing but a stiff rein and a rawhide quirt, well applied around the ears, could dissuade him from rolling. If he chanced to get you off so that you had to let go of him, he immediately seized the opportunity to pound you with his forefeet, very much as a deer in the water will sometimes turn and hit a following hound. A blow from an unshod hoof under such circumstances might be thought a matter of no great moment, but if you happened to be the one hit, you had reason to think otherwise.

To give the devil his due, the cayuse had a number of good qualities that in some measure atoned for his viciousness. He was usually surefooted and travelled almost anywhere that a

man would venture. In mountain ascents and descents he could pick his way along ledges, cross taluses of broken stone, and slide down declivities like a wild goat. Besides, he had intuitive cunning about boggy ground and quicksands, could feel his way across a mountain slide with his forefeet, and in open country could go his thirty or forty miles a day without being worn or winded. He never had to be pastured, and if with companions, he was not hoppled. He picked his own food and got fat on cottonwood bark. If there was water near by he took it, but he could, if emergency required, get on for several days without it. Like his Indian master, he accommodated himself to his environment, whatever it was, very well, but he had "a heap bad heart."

The Indians (those at the north particularly—the Sioux, Crows, and Cheyennes) were never very good company on a ride or a hunt. Their disposition was brutal, sullen, unsocial, not to say quarrelsome. Hour after hour they would ride on without saying a word. If asked a question, the chances were two to one they would not answer. Each one looked after his own skin and cared nothing for the others. As for the women and children (if it were a band on the march), they,

too, looked after themselves. The papooses, lashed to a board or slung in a pouch, were loaded into a carryall made by skins bound to tepee-poles. Ponies dragged the tepee-poles as they might the wheelless shafts of a wagon. The papooses were jounced and rolled and knocked about all day on the march, but they never cried. At evening when camp was made they were taken out and put down on the ground, whether heads up or feet up, in the sun or out of it, mattered not. Flies and mosquitoes ate them, but they made no murmur. They knew very well that no one would pay attention to them.

The squaws pitched the tepees, got the meals, and did the camp work. The meal was generally a soup made up of everything edible that had been caught on the day's tramp. It was usually cooked in a huge pot. Any kind of meat, whether fish, flesh, or fowl, turtles, lizards, wild onions, carrots, sago-lilies, acorns—anything that anybody would eat—was flung into the pot. When meat ran short, one of the camp dogs furnished the basis of the soup. Always, with every Indian outfit I have known, there was an abundant supply of snarling, quarrelling cur dogs, of all ages and degrees. On a march they brought up the rear,

with lolling tongues and slow, half-coyote trot. In swimming a river, after all the men, ponies, children, and squaws had crossed, this following of cur dogs could be seen standing and howling on the bank, afraid to take the water. Finally, one by one they would wade out, until beyond their footing, and then swim across—the old dogs first, and the whimpering puppies, snuffling water in and out of their noses, coming after.

In riding, the chief and older men led the way and the younger bucks followed. Something to eat was uppermost in thought, and the quest of game was omnipresent. Riding with them was hardly a joy to the stranger; and, as for the Indians themselves, I never saw any one of them give sign of pleasure in company, or over the weather fair or foul or the landscape far or near. They were obsessed with the more material things of daily existence, and beauty was something they probably could not see, and at any rate did not exclaim over.

A rather unusual experience with the Indians at the south, especially in old Mexico, led me to think them devoid of any fine color sense. They recognized strong reds, blues, oranges, greens; but the rose and amethyst and pale-saffron tints

they did not see at all. And they were quite blind to pale shadows. Form they recognized largely by silhouette or outline rather than by bulk, and when you talked atmosphere and perspective at them they were wholly at sea. With a primitive mind they saw things as men of the Stone Age might see them—that is, in outline. The Sioux and Cheyennes at the north were not different from the Indians of Mexico in this respect.

Although the Sioux never was a good companion to ride with, he was always a fine rider and an excellent pathfinder in the wilderness. He belonged to the buffalo days and was then a picturesque figure, if you did not know him too intimately. Later on he degenerated, through white influences, into a hanger-on about agencies and towns, making occasional trips to old hunting-grounds in the summer seasons. In the early eighties, while riding the eastern Montana country, I often met small bands of Crow or Sioux either camped or on the march. One day on the edge of the Bad Lands, hunting antelope, I saw what I supposed to be the rear end of my game vanishing around the side of an isolated butte. Every hunter knows the cunning trick, sometimes

resorted to by the antelope, of going around a butte, keeping the butte between you and him, and finally streaking off across the prairie from another point of the compass than you anticipated. I was aware of this play, and to head it off I put my horse to a run, riding around the opposite side of the butte and hoping to meet my antelope coming toward me. Instead of that, as I turned the far end of the butte, I ran into a band of Indians seated about a camp-fire, drinking libations of soup out of a battered agency wash-boiler. A hawk falling upon a bevy of quail could not have caused a quicker scattering of forces. I was riding so fast that I could not stop, and so dashed right through the camp, out on the other side, and across the prairie beyond. Wild yells followed after me, and I had reason to anticipate bullets, but I never stopped or turned around or gave sign of even having seen them.

When the great northern ranges were utilized for big herds of cattle and the smoke of the round-up camp was seen under the cottonwoods along the Tongue and the Powder, straggling Indians would frequently drift into camp and ask for food. Their appetites were something extraordinary. I never knew an Indian to refuse

anything to eat. Potted ham and dried-apple pie preferred, but they never objected to pans full of white baked beans—"soldier beans" they called them—and saleratus biscuit. Their stomachs seemed so many bottomless pits, and atop of food they poured basins of coffee that disappeared as though down a prairie-dog hole.

After the meal was over they gathered up in empty cans all the bacon rinds, bones, and scraps of bread to take home to the squaws and papooses. Sometimes the squaws were present and able to look after themselves. One time at a sun-dance in the Blackfeet Indian Reservation I sat in a circle with members of the band while the head men and chiefs gave out rations obtained from the agency store. After the distribution a fat old squaw, who sat next me on the ground, got out a cheap case-knife, cut the top of a quart-can of tomatoes, and drank off the whole quart without ever taking the can down from her mouth. I was so much amused that I could not help laughing in her face, but she calmly wiped her mouth with the back of her hand and smiled as though there was nothing unusual in the proceeding.

With the advent of the big herds of cattle upon the ranges of the Montana-Wyoming country

there came in a better class of horses. The mustang was reduced to "a five-dollar cut" (meaning you could cut out and buy any horse of an Indian bunch for five dollars), and a half-Oregon horse took his place. He was a little larger than the mustang, not quite so hardy or agile, but better broken and trained, especially in handling cattle. These horses usually knew their round-up work, and could cut out and drive cattle very well, but in other respects they were of limited brain power. Every horse is more or less stupid. He is perhaps the only animal that will shy at a newspaper or a dog or a bunch of leaves or a lantern, and yet he has been driven along roads and by such things for centuries. He is also about the only animal that will go into a field through a gate, go down to the bottom of the field, and, not finding a way out, will hang his head over the fence until he starves, waiting for some one to lead him out. A dog that scrambles under a gate and runs along for several hundred yards and then finds there is no exit, will turn about and go back to his original entrance under the gate; but a horse has not sense enough for that. "Horse sense," as the term was originally used, meant very limited sense.

The old time cow-horse was, of course, much cleverer than the horse of the stables, and usually had all of his limited faculties about him. He knew rough ground and mountain climbing, and was bred to lassoing, throwing and holding; but at his best I always found him an obstinate, self-willed beast. He never changed his mind or heart about anything, and beating never improved him. In those big range days I rode frequently with the outfits, but often went off on side ventures for twenty or thirty miles alone. No horse I ever rode but put up a sturdy objection to this. I was taking him away from the other horses, and that in the equine code was a crime. He registered opposition from the start by refusing to go off a walk. Beaten with a quirt and jabbed with a spur, he would make a spurt forward only to drop into a trot, and then a walk, at the first opportunity. If you stopped for a moment to look at anything, he gradually edged his way around, facing toward the home camp; and when you started you had to twist him about or he would take you on the back track. If you dismounted to study a rock or a flower, you could not throw the reins on the ground and leave him to stand. He would sneak off in a moment,

carrying his head on one side and trailing the reins so that he would not step on them. If you ran after him, he at once broke into a run, and you were left alone on the prairie to get back to camp as best you could.

When, after half a day of riding, and with no let-up of home insistence on the part of the horse, you finally turned and tried to make a big circle back to camp, you found your animal at once in a different mood. He pulled on the bit and was eager to run all the way back. If you held him in, he chafed, pranced, danced, cut side-capers, jounced you sore, did everything but walk or jog quietly. He never wanted to complete that circle, but was persistently trying to clip slices off of it with short cuts. When you got back to camp perhaps you were more tired than the horse and, as you unsaddled him and turned him back into the bunch, you were well disposed to kick him; but nothing that you could do would make the slightest impression on his horse-will. The obstinacy remained and would appear the next day as surely as the rising sun.

The most useful animal I ever rode was a white-eyed pinto pony that had gone blind in one eye and lame in one foot. All the other horses

seemed to despise him, kicked and bit at him, drove him off. He seemed never very anxious about the horse-bunch, and I took him away with me often on hunting trips. There were a great many pin-tailed or sharp-tailed grouse in Montana in those days, and during the heat of the noon hours these grouse used to seek cover in low bullberry-bushes growing in the shallow swales. I rode the pinto through these bushes, seeing over the tops of them from his back. When the birds got up, the white-eyed one accommodatingly swung his head around to the right and allowed me to shoot from the saddle. He did not like shooting over his head but had no objection to a broadside. I made many bags of these birds, and in camp the cowboys (usually fed on beef three times a day) were enthusiastic over the new ration. In consequence the pinto came in for much praise and decent treatment in the corrals.

But the pinto could not stand heavy work. Up in the mountains among the pinyons and pines, hunting elk or trying to locate mountain-lions, a stronger, swifter horse was needed. For that work I picked out a buckskin that was a good jumper and a swift runner. He had the usual horse failings, but he was superb in his sure-

footedness and in his ability to get in or out of the great steep-banked trenches that criss-crossed the Montana ranges. I began by training him to jump white-tailed deer in the willow bottoms of the Little Powder River. He would smash through the brush and make so much noise that any disposition on the part of the deer to skulk and hide in thickets (and that is one of their shrewdest plays) was discouraged at the start. They took to flight, and immediately the buckskin saw them he went after them as though they were yearlings on the range that required rounding up. The deer, of course, would soon leave us in the rear, though I did manage to knock one of them over one day with a forty-four revolver. That, however, was an accident. In those days I often hunted game on horseback, without a gun, for the mere pleasure of seeing it run. A deer hurdling over fallen tree-trunks and taking a flying plunge into a river was a sight worth any one's seeing. And what could be more thrilling than a band of elk breaking through pinyons on a full run! Even a mountain-lion up a tree was better to look at than to shoot.

There were other sights besides game to wonder over in that Montana country. One day, riding

through the willow bottoms of the Tongue, I got off my horse to examine something white that was half-bedded in the sand and grass. It was a human skull with a bullet-hole through the side of the head above the right ear. The eyes were stopped with dirt and the skull was bleached and dry. Had I been an evolutionist hunting for a missing link, perhaps I could have put together figures about river deposits, denuded benches, and glacial drifts, to prove the skull as old as the Neanderthal or Piltdown skull of prehistoric antiquity; but the bullet-hole gave me pause. The probabilities were overwhelming that it was an Indian or white man's skull and had been there only a few years. Riding on I found, a hundred yards farther up the river, the missing link of the story. It was the remains of a half-burned wagon with collapsed wheels, rusted tires, and a broken tongue. Near by was a shovel, some barrel-staves, several broken boxes, bottles, and cans. Under a tree I put together about half of a human skeleton. What explanation? Why, the obvious one that a miner's outfit going across the country had been surprised in camp. The Indians had killed the party, stolen the horses with everything of any

value in the camp, and the coyotes had done the rest.

In Montana in the early eighties bones were scattered everywhere over the ranges, but they were not human bones. They were those of the buffaloes. Their slaughter had taken place a few years before. Outfits by the score had gone out from Miles City and elsewhere with shooters, skinners, drivers, and cooks. The buffaloes were shot by the thousands, their hides pulled off, and their carcasses allowed to lie where they fell. The hides were taken into the border towns, such as Miles City, and sold in the raw state for two dollars a hide, the money being immediately converted into raw whiskey. It was the most brutal butchery of big game the country had ever known. For years afterward the great buffalo range was strewn with the whitened bones; and then second expeditions, having learned that horns and bones were valuable, went out and gathered up the remains. Thus passed the buffalo.

Riding in the Bad Lands in those days I was dimly aware of still other bones, that had not to do with buffaloes or Indians, but belonged to geological times. Unfortunately my interest was not great, and for that reason perhaps some im-

portant "finds" slipped through my fingers. My geologic curiosity at that time seemed to centre about the stratification of colored rocks rather than dinosaurs; and a sea-shell on top of a butte gave me more thrill than the joint of a mastodon. I remember gathering one day from the top of a small table-mountain a hatful of petrified clams —something I was told afterward, as regards the petrifaction, was an impossibility. The clam-shell was said to be simply filled with dirt and looked like a clam. But I broke open a dozen of those clams and found the same clam-colored interior in all of them. A casual glance would persuade one that the clam was there and alive, but the touch of the finger found the flesh hard as jade.

The colored strata and the strange forms of the eroded buttes in the Bad Lands were quite the most obvious features of the landscape. The cowboys could never be persuaded that water wear was responsible for the fantastic forms, and oxides of iron and copper for the bright colorings. They insisted on fire, volcano, or earthquake—some huge cataclysm—as necessary to such an effect. They pointed out as proof small jets of steam and little spirals of smoke coming out from

under some of the buttes or around the edge of sunken bowls in the ground. These bowls at times would be filled with bright-green grass while all the herbage about them would be withered and yellowed. My own imperfect ideas of geology led me to think them only manifestations of minor faultings such as marked the Yellowstone Park with hot-water geysers, colored pools, and mud volcanoes.

Southern and eastern Montana was a wonderful riding country just after the buffalo days. There were strange surprises at every turn and an infinite variety of prairie, plain, table-land, and mountain. From the high points one could see enormous distances through the clear air. I often saw the glow of sunlight on the Big Horn Mountains more than a hundred miles down in Wyoming. And the endless vistas to the east over blossoming plains to be seen from the heights of the Cheetah Mountains or the foot-hills of the Rockies! And what strange indented river-basins! From the Indian trail looking down was there ever a stranger sight than the valley of the Big Horn River? Beyond it there rose a loosely cemented table-land, gulched by rains and rivers until thousands of enormous cone-shaped peaks

seemed pitched upon the plain like the tents of some army of giants.

A fascinating country was Montana in those days! It was so aloof, so far away, and so superbly sublime in its vast sweep! Many times at dawn and dusk I rode the high ridges to see the sun come and go over that wilderness of the open. Even my horse, whose intelligence I scorned, would look out from some height with bulging eyes and forward-set ears as though he half comprehended the far distances if not the serene grandeur of the scene. Later on I rode for several years the Southwest and old Mexico, but they were not such riding country as Montana.

CHAPTER III

RIDING THE RANGES

It was in the early eighties that the big herds of cattle were first driven up on the northern ranges. The buffaloes had not entirely passed but were rapidly passing. And the cattlemen were not sorry. It gave them new grazing country. The northern ranges were enormous, and by the casual observer were supposed to be quite worthless. Gumbo, alkali, and sage-brush were almost everywhere, and anything like "feed" in the Eastern sense of tall grass was not apparent. But the cattlemen knew that the buffalo-grass, lying low and growing in small bunches, held more nutrition than the long prairie-grass of the Dakotas. It had kept the buffaloes for many years. Why not the Texas long-horn or the Oregon short-horn? And it did.

The ranges in those days were held by claim and possession, very much as a miner staked out his diggings and held them—that is, with a gun. Some of the larger companies bought, or took out under the Homestead Act, a hundred or more

acres near water, and would call those acres the "home ranch"; but the "home" was only a log hut where flour and other supplies were stored, and the "ranch" was merely an enlarged corral where a few horses for immediate need were pastured. Everybody slept on the ground and ate around a camp-fire or at the end of a grub-wagon. Once or twice a week perhaps camp was shifted to some new spot. The men worked over the herds during the summer, and a herd meant oftentimes fifty or a hundred thousand head of cattle belonging to one company. Such a herd would be scattered over two hundred square miles, though the owner perhaps claimed only fifty square miles. There were no fences, and boundaries were recognized by creek beds or mountain ranges. A Stock Growers' Association immediately came into existence for mutual protection, and every owner agreed not only to look after his own cattle on his own range but every other owner's cattle found upon his territory. This recognition of property rights with its spirit of mutual helpfulness was necessary; otherwise the cattle would be like so many herring in the sea, running in schools to be sure, but with no limit to their wanderings.

Helpful as was the association there were, nevertheless, endless quarrels between the stockmen over range lines, wrongly branded calves, and stolen horses. Outfits saddled up more than once and went over to neighboring ranches "to settle about those calves," and sometimes there was shooting; but usually it ended in a great deal of talk. Those were shooting days, and much ammunition was expended with good intent to kill, but it was always rather astonishing to me that so few of the enemy were laid low. The cowboy wore a belt of cartridges, had a forty-four gun in a holster on his hip, and, of course, prided himself on being a dead shot. He would spin unending yarns about shooting the lights out in saloons, splitting billiard-balls on the tables, and breaking the glass insulators on the telegraph-poles; but when you asked him to kill a coyote or a prairie-dog, or a sage-hen on the ground before him, he failed to arrive. He was out of practice, or his gun was dirty, or he had some new cartridges that fitted badly. The truth was that his gun kicked so viciously it would overshoot an elephant at ten paces, and the bullet was so jammed in going from the cylinder into the barrel that it shot wildly. A further truth was that the

cowboy knew nothing about shooting *per se*. He could shoot more and hit less than any man I ever met.

Sometimes the sheriffs and deputy-sheriffs developed considerable skill in gun-play, because they were kept in continual practice. It was the golden age of the cattle business, and it was also a prosperous period for the engaging horse-thief. Horses were continually being run off into the Black Hills region and sold south and east through a Deadwood "fence." It became an established business. In riding the ranges I often picked up the trail of banded horses, and on several occasions traced them to the heads of deep-cut trenches where the horses had been rounded up and corralled during the day. Most of the work was done by night, and in the actual stealing sometimes a "wrangler," watching the ranch horse-bunch, would get a bullet through his head.

All this was decidedly irritating to the cattlemen. They were too busy to chase horse-thieves, but they cursed loud and deep. At last, one summer the hat was passed around among the stock growers. Large sums were raised, men were hired at exalted prices, and an organized campaign was started. I was told (quite in confidence)

that the bag that season was fifty-two horse-thieves, shot on sight, and left just where they were shot. The result was that for several years thereafter the export trade in stolen horses through the Black Hills rather languished.

Besides the horse-thieves in those early days there were Indians to bother the cattlemen. Every few weeks some wild-eyed cowboy from a neighboring ranch would come riding into camp to tell us with quick breath that the Indians were on the war-path. They were raiding the ranches, killing cattle, coming down the river, or doing something else equally perilous for us. But no one paid any attention to the warning. We went on eating beans, with boot-leg coffee for a wash-down, and crept into our blankets without assigning sentinels to keep guard. We had been frighted by those false fires too often.

It is true there were depredations carried on by Indian bands moving across the ranges. They shot cattle when they wanted meat. Had not the white man shot their buffalo and why should they not shoot his beef? The carcass of a big steer with his tongue and tenderloin cut out, and the rest of him left to the buzzards, was not an infrequent find. And the knife-work always be-

trayed the Indian. This was still greater irritation for the ranchmen, and occasionally a volunteer posse of cowboys would go out from some cow-camp with the avowed purpose of "getting those Indians," but the Indian had been raised in that country, and knew very well how to effect a disappearance. And the cowboy was always at a disadvantage. A half-Oregon horse carrying a heavy saddle and an armed and outfitted rider could not keep up with an Indian riding bareback in his bare skin.

Aside from horse-thieves and Indians, life on the big ranges was always adventurous, strenuous, more or less exciting. It was the beginning of the cattle business at the north when everybody rode hard with a whoop—rode the legs off the horses and the beef off the cattle. Every ranch with fifteen or twenty cowboys in the outfit would have from a hundred to two hundred horses in the horse-bunch, and every cowboy would have from five to fifteen horses on his "string." In round-up work three or four horses a day of each cowboy's string would be ridden to a finish, thrown out to rest for four or five days, and then taken up again in rotation. It was a common occurrence to saddle up a horse and ride

him on a run for fifteen or twenty miles as the exigencies of the round-up demanded. That the horse blew or wheezed or got in a lather or stumbled was no reason for moderating the pace. If the ride used him up permanently it was no great matter. There were plenty of other horses in the bunch.

The quirt and spur and lasso were always in use. None of the horses understood any other language. They were started with a spur, stopped by a pull on the spade bit, turned to left or right by the flat of the rein on the neck. You could mount on the right side but not on the left, and you could ride with your hands up (one holding the reins and the other your lasso) but not with them down at your side or on the pommel. The horses were accustomed to that procedure and were nervous under any other.

The saddle was a heavy, deep-seated affair, with broad double cinches that would hold anything from a calf to a silver-tip bear, and it was cinched up until the horse groaned. It required that tight cinching, for the strains on it at times were severe. When a heavy steer was roped, one sometimes felt as though something had to give way. Frequently the rider gave way, even when

there was no rope or steer attached. Though deep-seated in the saddle, with feet pushed through the stirrup to the instep, and straps to hold by in addition, one was often flung out of the saddle by the quick turn at full speed of a cutting horse. Every one sooner or later became an expert rider, but even expertism did not always save when a horse stumbled, or got his foot in a prairie-dog hole and cut a somersault, or ran over a calf on the edge of a herd and went down with a smash. It was hard work, made unnecessarily hard by whoop and bravado and a wrong understanding of the cattle business.

A round-up at that time usually had several objects in view. Each outfit worked over its territory two or three times during the season to keep its cattle on its own range, to head cattle belonging to other ranches toward their home range, to brand newly-born calves, and to gather beef steers for market. In the cow-camp everybody got started before daylight. A coffee, beans, and beef breakfast was ready at the tail-end of the grub-wagon as soon as the men had their blankets rolled and their faces dry-wiped, or wet-dipped if water was at hand. By daylight the horse-bunch had been driven in, held up in an

improvised rope corral, and the men were lassoing the animals that were to be ridden that morning.

Saddling followed, and with much profanity. The tough, the bad man, the bronco-buster were in evidence in every outfit, and the horses were told, with strange oaths, to stand still or they would be cut in two. Naturally they curved their backs, laid their ears flat down, and looked the more devilish the tighter the cinches were drawn. The men swung into the saddles, but the moment the horses were urged forward by the spur, perhaps a third of them began to buck. Ten minutes of that and then the bronco-busters—often whey-faced and out of breath from their pounding—caught up with the rest of the band. Never caring much for the joy or glory of conquering a bucking horse, I compromised by a looser cinch, and if, in spite of that, the animal looked vicious, I walked him for a few minutes before mounting. The result was I usually maintained a spinal column untelescoped, and rode my miles as easily as the others.

The controlling instinct of range cattle has always been to keep together—to keep in a bunch or herd. In riding the ranges one occasionally saw two lone bulls that had been fighting for sev-

eral days and had just enough strength left to stand and glare at each other, or a disabled cow with a young calf, or a bawling yearling that had lost the herd; but usually the cattle were seen in bunches of from ten to a hundred scattered at random over small areas. These groups were found grazing in the little valleys and swales lying off from the main creeks. Once a day, sometimes once in two or three days, the units would come lowing to water at the creeks, and then afterward trail up the swales and out on the ranges for ten or fifteen miles. On a round-up these groups were brought together in a large central group by the simple process of riding the swales and driving the cattle toward a given point on the creek or river bottom. They could always be relied upon, whether grazing at ease or wildly stampeding down a swale, to hold together. In fact, at the round-up difficulties never arose until the cutting horses began separating certain cows and calves from the main herd. Any attempt to separate an animal from his kind met with instant opposition from the animal.

The first round-up of the day began by riding down the spread sticks of a fan toward the handle. The foreman portioned out half of his force of

men to a lieutenant and sent him to the left, going himself to the right with the remaining eight or ten men. Each foreman, after riding for a mile or more, would perhaps strike the head of a swale leading down to the main creek. Here he would drop off a man and tell him to ride down that stick and drive all the cattle in the swale to the creek bottom (the handle of the fan), perhaps ten or twelve miles away. Going on another mile or two or three this detailing of a man would be repeated. Another cowboy would be set to drive down a swale. And so on until there were twenty men driving swales from different directions, and all of them hustling cattle toward the fan-handle or the main round-up goal on the creek bed.

When first surprised in the swales the cattle were always very wild. They curled their tails over their backs and ran like deer. They would sometimes run for several miles before a horseman could come up within fifty yards of them. As the bunch accumulated numbers on its way down the swale it became a little heavier and slower, got churned up somewhat with running, and lost some of its fear of the horseman. When finally it debouched into the creek bed and met other bunches coming down the far sticks from dif-

ferent directions, it melted into one promiscuous herd that milled around and looked wild-eyed in the most approved picture-fashion. The bringing together of the big bulls resulted at once in many fights, all of them easily staged and quickly carried out; the calves occasionally losing their mothers meant frantic bawling and running about; the whole bunch twining and intertwining and pawing the ground threw up clouds of alkali-dust. But the herd held together. By the time all the swale riders had driven in their catch perhaps there were five thousand cattle or more on a level piece of ground, kept in ring-form by cowboys riding slowly backward and forward.

Then another phase of the round-up began. The horse-bunch and the grub-wagon, taking a direct line, usually arrived in advance of the cattle. Fresh horses were roped and the specially trained cutting horses were brought up. They edged into the herd, guided by their riders, and began getting out the cows running with unbranded calves. After one or two turnings by the flat of the rein an intelligent cutting horse would know precisely the cow wanted. He would get up to her flank and gradually work her toward the edge of the herd—the cow looking behind and always push-

ing ahead to get away from the horse. When the outer edge was reached, a slight touch of the spur, a dash forward of the horse, and both cow and calf would suddenly find themselves twenty yards outside the herd.

That was the beginning of trouble, for instantly the cow found herself isolated from the herd she would try to plunge back into it. Then came into play the swiftness, quickness, and skill of the cutting horse. His nose was always at the cow's shoulder heading her off. There would be a wild dash at antelope speed for a quarter of a mile around the edge of the herd, but the horse would be on the inside. Then, without the slightest intimation, as quick as a flash, the cow and calf would turn about and run back over the course. Only one thing could go beyond the quickness of the cow and calf and that was the quickness of the horse. If you were on his back, you found out instantly why the cowboys rode in a deep saddle, with a long stirrup, and their foot pushed through the stirrup to the instep. Even with those aids you would often have difficulty in keeping your seat when the horse turned to follow the cow. The wrench of it was wicked—so much so that in those days a cowboy over thirty, riding a

cutting horse, was a rare sight. Only the young men could stand the strain.

After two or three turns up and down the outside line the cow would find herself gradually pushed farther away from the herd. Temporarily she would give up her herd proclivities and stand out in the open bawling her loneliness, while an extra cowboy kept her in check. After several cows and calves were thus run out they would form a little herd of their own, and with each other's company for solace they would gradually quiet down. On the opposite side of the big herd a bunch of beef cattle to be shipped to market would begin forming in precisely the same way. This beef herd would grow in numbers with each round-up, be kept in charge by a special man or two, and moved slowly from place to place. Eventually it would be grazed along at the rate of ten miles a day (so it would not lose weight) toward a railroad siding with cattle chutes and cars for shipment. Perhaps at the end of a month or more this beef herd, seven or eight hundred strong, would reach its goal in the Chicago stock-yards.

After the beef cattle and the unbranded calves were taken out the balance of the herd was headed

back over the ground that had been worked, and perhaps the stranger cattle in the herd started north or south, east or west, in the direction of their home ranches. Then came the branding of the calves. Each one in turn was roped around the neck from a horse and towed by the horse, bawling, kicking, and pulling, up to the branding fire. There it was flung down on its side and duly branded with the 7OL or Diamond Bar, or Double Circle of its mother.

Everything unbranded received similar treatment, whether a day or a year old. The moment the hot iron struck the flank a bawl was emitted, and every cowboy knew by the pitch of that bawl just the age of the victim. The young ones struck a baby treble and the larger ones a six-months-old bass. In addition to the branding perhaps there was wattling on the throat or swallow-wing cuts in the ear. Everything was swiftly done, with no antiseptics of any kind. The calf, when finally allowed to scramble to its feet, was given a kick in the belly and sent to find its mother as best it could. Hardly one of them but weathered through this rather violent treatment. In that new country and that pure air it seemed impossible for bacteria to make trouble. Men

and animals died from accident but not from disease.

Occasionally accident would kill off a cow and leave a calf motherless. But after a few days of bawling the newly made orphan would hunt up a partner in misfortune and the two would sneak around in company stealing milk from the other cows. They quickly learned to eat buffalo-grass, and the premature grass diet usually made them pot-bellied, woolly in their coats, and nigger-looking in their eyes. If winter came in early they had but a poor chance of going through to spring, because not strong enough or hardy enough to paw through the snow to the dry range grass beneath. In severe sleet storms lumps of frozen snow would lodge on their backs and stay there for weeks, depressing their vitality, and eventually, with poor feed and much exposure, resulting in their death. They were forlorn specimens, and even when they weathered through and grew up they were always the runts of the herd. Yet this motherless calf was the cause of more than half the quarrels between the different ranches. This was the so-called "maverick"—no one's property because without a holding mother, and hence to be branded and claimed by the

first comer. The quarrels grew out of second comers, who changed the initial brands to their own, and were thus open to the charge of "stealing calves."

After the noon meal, the grub-wagon, the horse-bunch, and the beef herd would start on a straight line for a camping spot, and the men with fresh horses would start an afternoon round-up precisely as in the morning. In this way the whole range would be gradually worked over by the creek beds, the calves branded, the beef cattle selected, and the increase or decrease of the general herd estimated. Incidentally the cattle got much shaken up and lost flesh, while the horses were galled or wounded or strained in the legs. The riding was of the hardest. A cowboy riding to a finish four horses a day would frequently go eighty or a hundred miles, and that at a hard gallop, over the roughest ground, up hill and down dale, smashing through willows or bullberry-bushes, galloping over rocks or streams or quicksands. It was a losing business, because on a scale too large to control and too ruinous in waste to be kept up.

After a few years the losses through bad management, gray wolves, cattle-thieves, and hard

winters were so great that the big herds began to contract. Eventually the settler and the wire fence came on the scene, and that was the beginning of the end. The brave old days of whoop and shout passed out, and to-day the trail of the cowboy at the north has grown dim. There are ranches still existent and cowboys who run the legs off of horses, but the ranches are small and the outfits are pale imitations of those that flourished and fought in the early eighties.

CHAPTER IV

THE COWBOY

In the order of their importance, and in the estimate of the cattlemen, the cattle came first, the horses next, and the men last of all. If anything was to be rescued it was the imperilled herd, not the men. The cow-punchers could look after themselves, hustle their own horses, rustle their own beds and food, and get out of trouble as they got into it. In Montana, in the eighties, they were all young, active, and capable, needing neither sympathy nor help. And, naturally, astride of a horse, wearing "chaps" and carrying a gun at the hip, they took themselves rather seriously. They even accepted the popular estimate of themselves that they were a distinct genus of their own, and a bold bad lot into the bargain.

I never had many delusions about the cowboy, for I knew his kind before he was born. He never belonged to the Mexican *vaquero* class in the sense of being raised with cattle and riding with horses all his life. The *vaquero* was a peon herdsman,

born and trained on an *hacienda*, and remained such to the end of his days; but the northern cowboy was merely a Wandering Willie, who rode the ranges for a time because it was an easy job. He was usually a ne'er-do-well. Born perhaps in the Mississippi Valley region, and rejected by his family for moral delinquencies, he drifted out on the border and became a ranch hand because help was scarce and anybody could ride a horse, drive a cow, and tote a gun. He rode for only a few years and then, getting stiff in the joints from many strains, he took up with some kind of trade, opened a livery-stable or a saloon, started prospecting, gambling, tramping, or some other honorable or dishonorable calling. Cowboying was to him only a youthful and a temporary stop-gap. The raftsman of the Mississippi had typified his kind a dozen years before him. They were both of the unsettled youthful class and took up with riding a raft or riding a horse because the work had excitement in it and not too much continuous exertion.

The mentality and morality of both classes were rather conspicuously absent. They had little or no education, no great intelligence, and the very slightest sense of responsibility. The

vices of the border town—drinking, gambling, women—were naturally uppermost with the cowboy. Occasionally I would meet one who could speak the truth without swearing, and almost all of them recognized property rights and abstained from stealing; but they were quick on the trigger, shot to kill, with no compunctions of conscience if they happened to succeed, and got out of the country on a stolen horse if it were necessary.

They partly atoned for these reckless propensities by an unbounded good nature and generosity. The morose and disagreeable personality was seldom met with. They all talked a great deal, as young people usually do, and their theme was naturally limited, especially on the range. In a cow-camp every one talked cow or held his tongue. The tenderfoot from the East who started in to discourse about the theatres or restaurants or society life in Chicago or New York soon found himself without an audience. They knew nothing about things east of the Mississippi, and they did not care to know anything about them. They talked their shop and wanted you to do the same.

Of course they were generous—that (rather than patriotism, as Doctor Johnson had it) being

the last refuge of a scoundrel. Almost all crooked people are generous, and everybody, straight or crooked, in a new country where people are scarce, helps his neighbor. Those who live in crowded cities, and struggle to keep their ribs free from their neighbor's elbows, have very little understanding of the right and decent feeling among people who live in the open. Helpfulness with them is not so much regarded as a virtue as selfishness a crime. The cowboy, as a class, was never selfish. I had one summer for a partner a boy who had killed two men, been a gambler, served a term for stealing, and had a decidedly bad record; but I never knew a more sunny nature or a more generous one. When we rolled out our blankets on the ground at night, if there was one side softer or better than the other I got it; when he reached for the coffee-pot he helped me first; when we saddled up he would rope and bring out my horse or swing my saddle. And with all his bad history he was tremendously courageous and had as much endurance as any man I ever knew.

This same cowboy, while riding with me on a round-up and trying to cut a cow and calf out of a herd, had the misfortune to be badly thrown.

The calf ran across and in front of his horse while going at full speed, and the result was that both horse and rider turned a complete somersault. The cantle of the saddle caught his right leg, making a square break of the ankle. That was bad business, for we were eighty-four miles from Miles City—the nearest place for medical help—and no way to get there except on horseback. I was the only one in the outfit who had ever seen a broken leg. I got the cowboy—we will call him Dave—down to the creek, stretched him out, pulled off his boot, found the break, and by much pulling and more awkward feeling got the broken sections into place. I had brought from the grub-wagon a cracker-box, which I split up into many thin splints, and also several flannel shirts that I tore into strip bandages. I made a plumber's joint over the ankle, winding it until it was nearly a foot in diameter and reached from the instep to the knee. The whole was lashed fast and tight with much heavy cord and rawhide. During this crude performance Dave never flinched or groaned, though the sweat was rolling down his face; but when it was finished he swore with much violence and thanked me between oaths.

The real difficulty now came. It was the height

of the season and even I was riding down and out three and four horses a day. Dave had to ride alone to Miles City because no one could be spared from the round-up to go with him. I put some cold provender in a small gunny-sack, caught up an extra lead horse, got him into the saddle, and started him across the Big Powder to Miles City. He got there, as I afterward learned, without accident, but it must have been a difficult journey. It meant that he had to get in and out of the saddle, picket and water his horses, gather his wood, make his fire, cook his food, stretch his blankets, and all with a broken leg. He was four days and nights on the way, meeting not a soul, and sleeping with one eye open for fear he might lose his horses and be left afoot and crippled. That, I submit, called for courage and endurance. Few people would fancy the trip alone even unhandicapped by accident. Dave pulled through by sheer grit. When he got to town and had his leg examined, he was told that it needed no resetting. That was sheer good luck. He was back on the ranch in less than six months, quite as good as new.

Accidents on the range were not infrequent. The riding was of the roughest, and the cowboys

were often thrown, or were twisted in a taut rope, or squeezed under a falling horse. Sometimes the cattle got "ornery"—as the boys said—and charged everything in sight. Travelling the range on foot was always dangerous. The cattle were somewhat accustomed to a man on a horse, but they would quickly run down and toss a man afoot. Often, after being roped and thrown, some of the wilder cattle would get to their feet half-frenzied and rush at anything moving. One day in crossing a small stream, called Crow Creek, we found two very heavy steers bogged down in alkali mud until only their heads and tails were visible. We threw ropes over the horns of the first one and then, with a turn of the ropes around the pommels of our saddles, five of us abreast started our horses up the bank.

The ropes stretched like fiddle-strings, and it was a question in my mind which would break first, the ropes or the horns. But rather unexpectedly the body of the steer slipped forward out of the mud. We dragged him out on the bank and immediately heeled him with another rope. I was then delegated by the foreman to get down and slip the ropes off the horns while

the heel-rope was held taut. I did so, and then scrambled on my horse as quickly as possible, well knowing a charge would follow. Sure enough, as soon as the steer got to his feet and kicked loose his heel-rope he came at me under full speed. I led him away on a chase for three-quarters of a mile and then rode back to help rescue his companion. The same performance was repeated. It seemed a highly ungrateful proceeding on the part of the steers, but they, of course, were merely resenting the immediate injury to their dignity or their horns.

Cattle have as little sense as horses, and when anything unusual happens they are easily stampeded. One night when encamped under some cottonwoods on the Big Powder we were surprised by heavy rain and terrific lightning. My partner and myself, knees up, were endeavoring to shed the rain from our tarpaulin, when I heard, along the ground, a beating, rumbling sound that had nothing to do with the storm. I put my head out of the blankets to locate the sound just as a flash of lightning made a vivid illumination. In that momentary light I saw the tossing heads and horns of cattle on a wide front moving down upon the camp. I knew instantly that it was the beef

herd that had been stampeded by the lightning and was running wild.

A yell to the camp brought every one to his feet, and there was a quick rush to get behind cottonwood-trees. Six or seven hundred wild-eyed and frenzied cattle, not knowing where they were going, dashed through the camp. As they passed the tree behind which I stood each one, as he saw me out of the corner of his eye, snorted and kicked at me viciously. That swaying body of mad cattle, their wet hides, large eyes, and tossing heads, illumined by flashes of lightning, was about the weirdest, wildest sight I have ever seen. They ran on and down to the cut bank of the Big Powder River. There the first ones paused on the edge of a ten-foot drop, but the ones behind forced the leaders over the edge, and presently they were all leaping and smashing into the stream and swimming for the other side. I ran down after them and saw the second wildest scene of my life—mad cattle swimming a swollen river at night, with flashes of lightning and peals of thunder for accompaniment. That herd ran for ten miles before it paused. How much flesh the cattle lost on the run I do not know. I know the camp lost some sleep and

counted itself lucky that no one had lost his life.

The lightning in that Montana country I have never seen equalled elsewhere for deadliness of effect. It was not at all unusual to find cattle and horses killed by it; and the cowboys who had special charge of the beef herd insisted that, at night during storms, they could see the lightning playing about the horns of the cattle. One of our boys, while washing some clothes at the river's edge, was struck dead by a bolt that came almost out of the blue, so small was the cloud that sent it forth. At another time five of us were riding abreast along a high ridge, behind two or three hundred cattle that we were driving down to a round-up, when a thunder-storm overtook us. Two clouds seemed to converge and merge as they came over us. There was not one among us who did not know we were in the most dangerous place imaginable. Riding behind heated cattle was thought to be perilous, and the high ridge made us an exceptionally good target. Not one of us, had he been alone, but would have sought lower ground and let the cattle go; but each was ashamed to suggest such a thing, thinking there would be a sneer, a laugh, or a taunt about "some-

body being scared." We rode on at a hard gallop and swore as the cold rain filled our boots with water.

Suddenly there came a terrific crash. My riding hands dropped to my sides as though paralyzed, my head seemed to contract into my coat collar, and a tingling sensation ran through my body. My companion for that day (riding at my side and only an arm's length away) I saw, out of the corner of my eye, throw his hands up in the air like a man shot through the heart, and fall over backward, while his horse wildly reared and plunged forward. For a few seconds there was a mix-up of men and horses on the ground, and then everybody came back to normal, except my companion. He was sitting up in the grass wildly feeling around for his gun and howling that he had lost it and could not shoot. The lightning had so shocked him that he was out of his head for a day or more. His horse had a hind leg drawn up under his belly and stood on three legs for several hours. My cowboy hat had the brim torn out as though with a nail, and my right spur was melted off. The foreman of the outfit, who happened to be looking at us from a hilltop half a mile away, averred that the light-

ning had spattered among our horses' hoofs and that the number of us had absorbed the shock or else some one would have been killed. Perhaps.

Just before that crash of lightning there had been much laughter and profanity to show we were not afraid. But after the crash not a word was said. A great silence fell upon us. We gathered up my riding mate and got back to camp. He was put in blankets and an old coat thrown over his head (as a dog in a fit is treated), and every one went about his business as usual. That evening at supper one of the hardest of the swearers sat across the camp-fire from me. He was balancing a tin cup of coffee in his hand, and as he caught my eye he winked at me slyly, shook his head a little, and smilingly remarked in a low tone:

"I tell you the Old Man came near ketchin' us that time."

His reference to the Deity as the Old Man was quite in keeping with the prevailing custom of the camp.

The courage of the cowboy was perhaps not greater or less than that of other people. Every sensible person knows the meaning of fear, though some are able to hide their outward expression

better than others. And one gets used to danger without particularly enjoying it. Soldiers on the firing-line finally become seasoned in being shot at, and do not flinch, just as, in a smaller way, the people crossing a street are accustomed to dodging automobiles without heart-failure. So with the cowboy. After familiarity with many strange accidents, there came a time when he no longer ducked at the report of a pistol or a clap of thunder. Moreover, he was so full of robust health that he thought nothing could kill him. His health was an asset he drew upon rather heavily. In town for a few days, he drank enough whiskey to kill an ordinary man with alcoholic poisoning, but he knew he was tough and could pull through. And he usually did.

A boy from our outfit was sent into Miles City to bring out a bunch of young bulls, just arrived by train from Oregon. He did so, but knowing that the way was long and the job rather lonely, he also brought with him for company a small keg of whiskey. The keg, the bulls, and the boy arrived in camp; but the keg was empty and the boy had a pain in his abdominal region. He came to me for comfort. On examination I found he had a mushroom protrusion over his appendix,

and I now know that he had a bad case of appendicitis, but the disease and the word were unknown at that time. I put him in his blankets under a big cottonwood-tree and then went to the grub-wagon in search of a possible remedy. I found a bottle of crude castor-oil that some one had used to doctor a horse with a bellyache. If it were good for a horse, why not also for a man—both having similar symptoms? I gave the cowboy several heroic doses of that crude oil out of a rusty iron spoon. It was a God's mercy I did not kill him outright.

The oil, with hot compresses (made by soaking a flannel shirt in hot water), proved effective, and in a few days the lowly cow-puncher was calling for something to eat. I could think of nothing as safe as milk, but with twenty thousand fresh cows on the range there was not a drop to drink. Not one of the twenty thousand had ever been milked or handled in any way. I went out with two boys, chased up a young-looking cow and, after a half-mile run, roped and threw her. We dragged her into camp, put her in the corral, put ropes on her hind legs so she could not kick, and tied her head up with another rope so she could not hook. Of course I, being the tenderfoot of

the camp, was the only one out of eighteen whooping worthies who knew how to milk. I got about a pint of milk and took it to the recuperating cow-puncher. He drank it eagerly and I went away to turn my horse into the corral. In ten minutes I came back to find on the ground near the sick one something that looked like oyster-crackers. I asked him where he got them.

"Oyster-crackers! They ain't oyster-crackers. That's that damned milk!"

The milk had gone down his throat, turned into pot-cheese, and come up again in less than ten minutes. But the boy got well. He was too tough even for ignorance and malpractice to kill.

Toughness, with bravado and some inherent recklessness, usually made of the cowboy a good rider. He was never minded to ride like the hunt riders of the East. From riding all day for weeks at a time he came to seek the line of least resistance. He sat low in the saddle, with a straight leg, and with hands, arms, and body swaying easily. Occasionally and exceptionally one would meet with a cowboy who was timid about his horse, perhaps fearful of a bucking contest, or a stumble or a bolt. Such a one never became a good rider and was always the butt of the camp.

There was no place for timidity in the outfit. It met with a sneer and a jeer. And no one had sufficient simplicity of soul to refuse a "dare." In consequence there was often reckless riding to prove nothing. Even Ben, the foreman of the 7OL, was not impervious to the ironic voice and the contemptuous look.

Ben owned a large eight-year-old mare that had never been saddled or bridled. She ran with the horse-bunch, but when the bunch was driven into camp or corral the mare always cut through the line and escaped. No one could get within half a mile of her. She made great five-mile circles about the camp, drawn by the horses but fearful of the men. Ben was continually pestered by the boys as to when he was going to ride that mare. She was getting too old to break; in another year or so she would be hopeless; they guessed perhaps he was afraid to ride her.

One Sunday morning when every one was having a wash-up and no one working, the question of the mare was again broached. Ben thought it was time to yield. Four swift horses were caught up and the mare, far outside of the horse-bunch and cutting her huge homing circles, was run in relays. After an hour she was roped,

dragged into the corral, flung on the ground, bridled, and blindfolded by having an old shirt thrown over her head. On her feet again she responded to a saddle put on her by bucking vigorously but unavailingly. The saddle was double-cinched and the stirrups hoppled under her belly. Then, true to form, the gallant foreman swung swiftly into the saddle, pulled the shirt off the mare's head, drove his spurs into her ribs, and the two went through the corral gate as though shot out of a catapult.

Then followed the cleanest, highest, and swiftest bucking I have ever witnessed. Ben went "above timber-line" with every buck, as the boys expressed it—the reference being to the oak in the high pommel of the saddle. Not being able to jounce him off, the mare started and ran despite the spade-bit cutting into her mouth. I had never before seen such reckless running through sage-brush, over tree-holes, and down cut banks and washouts. Two cowboys at full speed rode beside the mare and tried, with their horses for company, to quiet her; but she was not to be comforted. After an hour or more the three came back to the corral, the mare in a lather and bloody in both mouth and sides, but with eyes still wild

and spirit far from tamed. Ben never tried to bridle or saddle her again. Sure enough, she was too old to be tamed and she eventually became a wild horse in the offing, something ghostlike vanishing over a hill or around a butte; but not to be caught again by any cowboy's lasso.

In a few years the days of the great outfits at the north had passed away. The cattlemen found that rough ranching did not pay and, with cattle as with politics, everything eventually reduced itself to a matter of finance. The big ranches were contracted, the big herds grew less, the rough riding went out, and cattle-growing was brought down to a business with fewer risks and more certainties. In that form it still exists through all the country lying to the west of the Mississippi. The old-time cow outfit of forty years ago has passed into tradition, though in 1920 I found a survival of the type down in the Mohave Desert near Hinckley. With several thousand cattle in a desert valley growing sacaton and bunch-grass, there was an old-fashioned outfit still sleeping on the ground, eating beef and beans, beating up its horses, and yelling itself sore in the throat at its cattle. Apparently nothing had been changed except the date in the calendar. The cowboy in

"chaps," spurs, gun, Stetson hat, and profanity was rushing things as vigorously as in the halcyon days of the big ranges in Montana and Wyoming.

CHAPTER V

DESERT DAYS

The desert is quite a different country from the uplands of Montana and Wyoming. As its name implies, it is deserted. The cattle-grower in the spring of the year pastures near-by parts of it, the prospector worries along certain mountain ranges of it looking for outcroppings of metal-bearing rock, the borax man creeps in and out of Death Valley with mule-teams, and sometimes a venturesome tourist picks up and follows the old trails of the Yumas from the Colorado to the Pacific; but in spite of these mild advances the land still remains deserted. When I first knew the Colorado and Mohave Deserts, twenty-five years ago, they were much less travelled than now —so much less that at one time I wandered there for nearly six weeks, with a dog and horse, and in that time saw neither rag nor bone nor hank of hair of humanity. There was only the desert— a great open wilderness lying under a clear sky and a blazing sun.

To venture into that wilderness without under-

standing its conditions was to invite disaster. Those who lived along its edges were full of strange tales about it—tales of its perils, of water-holes poisoned by copper and salt, of weird mirages and lost trails. And there were stories innumerable of dazed wanderings and deaths by heat and starvation. No one cared to go very far from a home base even with the gold lure in mind, and as for riding the desert for the mere joy of exploring it, that was the fancy of a madman. When I first began pushing into the interior from outlying stations there were plenty of old-timers to inform me that I was crazy and would "get caught up with." The reasons for their predictions were numerous.

In the first place, I declined to dress in mining costume, with a flannel shirt, thick trousers, large felt hat, and hobnailed boots. I wore a half-Indian, half-Mexican costume, consisting of nothing but a thin cotton shirt and trousers, a straw hat, and moccasins on my feet. I discarded impedimenta for both myself and my horse and travelled as lightly as possible. All the pots and pans and flasks and opera-glasses that generally make weight in a camping-kit were left behind. I carried a rifle, a small shovel, a hatchet, a pair

of light blankets, a small pan and some tin cups for cooking, a gallon of water, and several sacks of condensed food. I made my own condensation by grinding to a powder parched corn, beans, coffee, chocolate, and dried venison. This I packed closely in shot-sacks. Such was its sustaining power that a small sack would last me for weeks. I had merely to pour a few tablespoonfuls of it into a cup, add water, stir with a stick, and drink. I could go for twelve hours on less than half a cupful of it.

Besides this mixture I carried tablets of chocolate, closely packed dried figs, a few shelled almonds, a little bacon, some flour, salt, tea, and a small bottle of saccharine. I had with me a long single-barrelled twenty-two caliber Chicopee pistol, with which I shot rabbits, desert quail, doves, and other small game. My whole outfit weighed perhaps less than fifty pounds.*

With living and transportation requirements thus reduced to a minimum, I felt measurably

* I had always fancied my provisioning was very meagre—in fact, approached to Indian simplicity—until John Muir told me of his mountaineering in the Sierras with nothing but tea and bread in a small sack carried over his shoulder. He slept under any bush that offered shelter, without blankets, and usually without fire. But Muir was Scotch and tough as a bit of heather—with all the beauty of character and fine color-tone belonging to that shrub.

secure. My horse I always kept in fresh condition by not overtiring him, so that in case of emergency I could ride out of the desert, or to the edge of it fifty miles or more, at one stretch. But, of course, the horse was a responsibility, a cause for worry at all times. The beast I first secured was desert-bred, accustomed to heat, and could go, under pressure, a day or more without drinking; but he required water every day to keep him in condition, and water was the scarcest article of all on the desert. I was never able to move from one water-hole until I had located and tested another. Some days I would ride twenty miles in one direction, and, finding no water, would be forced to return to my former water-hole.

But after a few weeks I became rather cunning about finding water in unexpected places. On the California deserts I always followed the mountain ranges, working along the bases, and my eye came to recognize (by a slight variation in the hue of the ground or the shade of color in desert growths) just where water could be found by digging. The mountains, some of them lifting six or eight thousand feet, received considerable rainfall on their tops during the rainy season of winter, but very little rain ever fell in the valleys

at any time. It would be evaporated by the hot air of the valleys before reaching the ground. The rain falling on the mountain tops would wash down in stream courses to the bases, and what got to the desert valleys disappeared at once under the sands.

But some of the water remained in the upper stream-bed, even during the long, dry summer, and was hidden in pot-holes of the rock under accumulated layers of sand and gravel. Wherever a stream was shunted over a ledge of rock and fell from a distance into a basin below, I would generally find, under the sand and gravel deposit of the basin, a catch of water. Digging for just a few feet would disclose it. These catches of water differed in size according to the basin. Sometimes there were only a few gallons and at other times several barrels. If there was no considerable body of sand and gravel the water would soon dry out and I had to look elsewhere; if the bottom of the basin was cracked the water leaked out and I dug in vain. Not one basin in a dozen answered expectations, but enough of them responded to make life endurable for my small outfit.

It was amusing at first to watch the eagerness

of both the dog and the horse when I began digging with my small shovel in one of these rock-basins. They quickly grasped the fact that I was after water and would crowd forward with paw and hoof and push gravel into the hole until I had to send them off. I usually made the dog drive the horse away, but the horse came back in a few minutes, head down, ears set, eyes wide open, and nostrils snuffing. He was thirsty and did not care to disguise the fact. The dog always watched the hole I was digging as though he expected to see rabbits jump out of it. That occasionally I found gold-dust (seen under a small magnifying-glass) at the bottom of a pot-hole did not interest me very much, and the animals not at all. We were not gold-seekers, though I dare say had it appeared in more substantial quantities my interest would have increased.

Water I sometimes found oozing out drop by drop from some ledge at the foot of the mountains, and at other times I met with green catches of water in rock cisterns cut in the granite centuries ago by some grinding-stone. The latter was usually exposed to the air and light and unwholesome, but I made it potable by cutting up cactus lobes and dropping slices into it. That

settled and cleared the water, and after boiling it in cups I could drink it. But desert water, at best, proved a hard drink. Sometimes it was brackish from too much salt, and probably some of it was poisonous from too much copper, though I never experienced any effects of poisoning. It was usually blue with alkali, which was bad enough.

A clear little drip of water from a ledge of rock was something not often found and so very acceptable that it was difficult to leave. I stayed beside such a spring oftentimes for a week, watching at morning and evening to see what animals came to drink. I can remember nothing four-footed ever appearing at such a place except a lynx, and he was after birds, not water. The rabbits, coyotes, and desert deer never appeared, even in the offing. But the quail came, and the Sonora pigeon with mourning-doves were always hovering about such a dripping spring. I cannot remember, however, that the quail ever drank the water.

In a week after my first venture in the desert I had trained myself to get on with about one-third of the water I would normally drink. Day after day I went from sunrise to sunset without drinking. If my mouth became dried out I

chewed a few leaves of greasewood (creosote-bush); if the day was terrifically hot—that is, one hundred and twenty-five in the shade—and I was tramping or moving, I would slash into a barrel cactus (bisnaga) or a column cactus (suhuaro) with my hatchet and get out some of the juicy pulp. It was usually bitter or sour to the taste, but it held sufficient water in it to quench thirst. The desert Indians always knew about these cacti, but I never met with a white man who saw in them anything but curious bundles of thorns.

The horse bothered me less in the matter of his feed than his water. A desert valley where one would think a goat unable to pick a living from a thousand acres would, nevertheless, grow in the spring excellent feed grass in bunches in between the greasewood. It mattered not that in summer it was dried out, that it lay crumpled and broken on the ground, or that it was piled up in small sections around ant-hills. Its nutritive power was in no way impaired by its dryness. Horses and cattle knew how to find it, and they throve upon it. If the valleys were too alkaline for it to grow, it would almost always be found on the mountain-sides. The higher up the better the grass. And there was brush growth up there that made good

browsing. So, all told, the matter of horse feed was not so desperate as water. In climbing the mountainsides for the one, we also secured the other, and almost always the night-camp was made up in the hills rather than down in the hot valleys.

The ideal camping-ground was under a live oak—when I could find one. The mountain ranges were usually covered with a thin chaparral, dry, tough, stick-like; and not at all a cooling shade or a blest retreat. Trees were scarce and I usually slept on any flat piece of ground in the open, near some small yucca palm or palo verde upon which I could hang my camp supplies and keep them away from rodents. During the summer months there was not the slightest danger of rain and very little cause for apprehension from other sources. At first I picketed and hoppled the horse, but I found after a week or ten days that he had forgotten his back track and was not disposed to leave. On the contrary, he was always edging in or looking toward the camp as though apprehensive lest the dog and I might move off unexpectedly and leave him tied to his stake. He was uneasy and snorted much, and so finally I turned him loose and let him trail his

rope. He never wandered far, and in the morning the dog soon rounded him up and drove him into camp.

The dog (a large fox-terrier) was very intelligent about all camp work, and soon came to understand what was expected of him besides shaking ground-squirrels and retrieving wounded rabbits. It was no part of his breeding to herd horses, but under stress he soon picked it up. His natural instinct served him in good stead. He would fight anything I set him at, except a rattlesnake. Any other snake he would shake until the snake-ends around his ears resembled a spinning-wheel; but he instinctively kept away from a rattler.

Both the dog and the horse were company for me and, being talked at continually, they came to understand my language much better than the average animals at home. That first summer slipped by without any accident of importance. One moonlight night the horse, trailing a loose rope, came plunging through the camp, but there was good reason for it. Three gray wolves (not coyotes) were close behind him. He had been grazing half a mile away when the wolves (probably starved out by a very dry year) jumped him. Strangely enough, though it may have been acci-

dental, he ran straight toward the camp as though for protection, instead of heading down the valley, where he surely would have been overhauled. I heard the hard beat of his hoofs on the ground and knew instantly that something was chasing him. I caught up my rifle as he came into sight. The wolves came on fifty yards behind him as though they had already settled down to a long, slow chase. When within twenty yards, I shot. They were the most surprised wolves imaginable, and at the report jumped straight up in the air, swerved to one side like a deflected wave, and ran off down the valley at an accelerated pace—one of them apparently running on three legs and lagging behind. I shot several times, but the light was too uncertain and nothing dropped.

In travelling on the desert both the horse and the dog objected to the heat of the day. Early morning or late at evening they were full of life, and night-work they seemed to enjoy; but after the sun had been up an hour or more the sands became too hot for them. The terrier would sit down under a patch of greasewood and howl, refusing to go on. I usually went back, caught him by the scruff of the neck, and pulled him up on the saddle behind me. He would brace himself

against my back, standing crosswise of the horse, and hold on even when we went at a hard gallop. I made him some buckskin shoes, which I tied fast just above his dew-claws with a buckskin thong, but he worried with them and finally pulled them off with his teeth.

The horse in the middle of the day developed a great longing for the shade, even though it were merely the very thin shade of a mesquite or a suhuaro. I myself was not averse to the shadow side of a rock at noontime, and often crept into a wind-worn recess for a nap, after having evicted any snake or scorpion tenantry that might be on the premises. Riding in the late morning or early afternoon was hot work. Resting up in the mountains and there watching the movements of scattered mountain-sheep or the flight of vultures seemed more profitable.

The horse evidently thought the same way, for he was always willing to go up into the mountains. He was an excellent, sure-footed beast, and could negotiate cracks to be jumped and escarpments to be descended quite as well as his master. And I never had to lead him to feed of any kind. His ability in rustling the screw-beans from a mesquite or the bunch-grass from a cholla patch was some-

thing more than remarkable. Sometimes I wondered if he had other and finer instincts. At dawn and dusk the sky effects seen from the mountain tops were very beautiful, with many varieties of gas-blue, pink, and orange colored air; I wondered if the horse standing beside me ever saw them.

Perhaps the most enjoyable part of the days up there were the nights. Lying on the blankets, with the warm air blowing over my face, the great hush of the desert all about, and the far mightier hush of starry space overhead, was always an inspiration rather than a loneliness. I may admit that there were times when a dreary feeling crept over me, but the morning sun always dispelled it. As for fear, there was nothing to be afraid of except my own decisions about water. The fear of man was wholly eliminated, and as for the wolves or other animals, they were more afraid of me than I of them.

Illness? I was already ill and went into the open of the desert to get well. Many of my days in there were ill days. But I kept busy making notes and studying vegetation and animals. I had determined to write a book about the desert, and it was necessary that I should know my sub-

ject.* That was one of the reasons for my going into the interior. Why did I go alone? Because I could find no one to go with me. They were all afraid of—nothing.

That was a summer of strange wanderings. The memory of them comes back to me now mingled with half-obliterated impressions of white light, lilac air, heliotrope mountains, blue sky. I cannot well remember the exact route of the Odyssey, for I kept no record of my movements. I was not travelling by map. I was wandering for health and desert information. My journeyings took me through the Coast Range, the San Bernardino Ranges, the Salton Basin (it was before the Imperial Valley was known or planned), down into Mexico and the mud volcano region, around the mouth of the Colorado, over into Arizona, down along the border into Sonora and far down toward Tiburon Island. On the way there were lost mountains to explore, odd spines of rock standing like monuments in the desert, old Indian forts on barren peaks, great adobe build-

* The book (*The Desert*, New York, 1901) was written during that first summer at odd intervals when I lay with my back against a rock or propped up in the sand. What success it had I attribute almost entirely to the fact that I knew the desert at first-hand and wrote about it with intimate knowledge.

ings (somewhat like the Casa Grande but of more modern origin) that I still vaguely remember seeing in ruins somewhere beyond Arivaca, strange strata of rock, stranger flows of lava, pot-holes and water-holes and mountain-sheep and desert antelope.

In southern Arizona and Sonora I often met with Papago and Yaki Indians who were friendly and helpful. They talked some Spanish, with much sign-language, and always seemed puzzled over me. They could not understand my being out there alone. The Indian mind is very material and is closely connected with things to eat, or at least something of palpable gain. To explain one's being in the desert just for the love of the open spaces of earth and sky was to them no explanation at all but merely some paleface lie set forth to throw them off the scent. I was usually thought to be in search of that lost Pegleg mine, or to know something about gold-washings somewhere in the desert.

That year in Sonora I did explore an old abandoned and forgotten mine, and a Yaki Indian took me to it by a very roundabout and difficult trail. The mine was evidently his unique secret and he did not want the trail to it known. I re-

member his riding a thin burro about as large as a Shetland pony, and that going down a steep rocky canyon the burro kept falling down. Every time the burro fell the Indian, whose feet were trailing on the ground, would pick the little beast up, stand him on his feet, and the journey would be continued. We at last arrived at the hidden entrance of a tunnel under the base of a huge mountain. The heated sulphureous air in the tunnel was stifling, but we made our way into the heart of the mountain, I with a handkerchief to my nose.

It seemed as though the whole interior of that mountain had been dug out. There were galleries everywhere, with mesquite ladders leading up and down, and enormous chambers that had been cut and caverned by the heavy tools of Yaki Indians. There were evidences of old blasting by lime and water and grinding of ore between heavy stones operated by burros—what the Yaki called a "rastre" (arrastre).* But nothing had been worked or touched in a hundred years. The whole place was as silent as the interior of an Egyptian pyramid. No doubt the Mexicans had

* An old Spanish mill with a vat in which a heavy round stone, propelled by a horizontal beam, crushed ore and prepared it for washing.

taken much gold out by working only the richest leads, and no doubt they left much behind them still in the rock. I never made further inquiry, and was not interested in the mine's commercial possibilities. My going there was merely a chance look into a forgotten treasure-house. I came away without the traditional bagful of gold, and was, in fact, so indifferent to the mine's money value that I made no topographical or mental note of it.

Another Sonora Indian (I think he was a Ceri and perhaps belonged on Tiburon Island), in recognition of a gift of some tobacco, took me on quite a different excursion. We went to the washed-out bed of a dry river. It was in the heat of summer and there had been no water in the bed for some months. Under the banks there were large caves that had been cut out of the soft soil by the rush and wear of water during storm periods. In these caves, much to my surprise, I found, not an occasional coyote with puppies, but a gathering of litters of puppies. As we walked down the dry bed of the river the mothers and little ones hustled out and away ahead of us. There seemed to be a whole colony of coyotes in that river-bed, hiding from the sun and measur-

ably protected in their lairs from enemies. That, I think, was one of the most astounding things in natural history that I ever met with. Wolves of all sorts sometimes run in packs but they do not breed in packs. On the contrary, the rule is that each litter is whelped in some lair very much secluded and away from others of the species.

In western Sonora, in the Tiburon Island region, I occasionally met Ceri Indians—two or three in a group—who always waved their hands over their heads and wanted to talk tobacco. They had not a very good reputation among the Mexicans (though the story that they were cannibals had not then been widely circulated), and where there were more than two in the group I never let them approach me. They usually understood when I shook my head and waved them away with my rifle. One day a group of four or five persisted in coming on, in spite of my signal, and I fired a cartridge across their bows. Then they scampered away in beautiful style and continued to run until out of sight.

One or two of them I always felt I could cope with and allowed them to come close. Usually they would begin by digging into the bundle of rags in which they were clothed, and, after much

search, bring to light a small phial stoppered with a stick or a plug of cloth. They would carefully withdraw the stopper and pour into the palms of their skinny hands a mass of small but quite genuine pearls—pearls they had gathered from the oysters of the California Gulf. They were not of any great value but they seemed to answer as token money in bartering. They would swap them for anything I had—tobacco preferred at the head of the list.

I never met any white people in the Sonora Desert, but, when I rode out of the desert toward the Sonora railway, I met with Mexicans, peons, and Yaki Indians on the outlying ranches. The Yakis at that time did most of the work on the ranches and were the most industrious and capable Indians I had ever known. About the time I was there an American syndicate greatly coveted the lands belonging to their tribe on the Yaki River. The Indians had been living there and farming the lands for two hundred years or more, but in spite of that the government at the City of Mexico sold the lands over their heads to the American syndicate and the Indians were ordered to vacate, without compensation. They declined to do so. The "Yaki War" ensued, the

object of which on the part of the government was to exterminate the Yakis and thus clear the title to the land.

The Mexican troops were reported as giving no quarter and taking no prisoners. In Guaymas I twice saw bands of Yakis, made up of old men, women, and children, marched through the streets for deportation by steamer to Yucatan. There was not a young man or a warrior among them. Ugly tales were told of other bands of prisoners that had been shipped out from Guaymas on the old gunboat "Oaxaca" and never reached Yucatan. The boat came back after a few hours at sea without the prisoners. If Yaki warriors fell into the hands of the *rurales* (Mexican troops) by chance, it was said they were lined up and shot or hung to trees. One day while riding the eastern part of Sonora I noticed a gathering of buzzards. I rode to the centre of attraction expecting to find some dead animal, but I found two Yaki Indians hanging from a large mesquite. They had been hanging there for several weeks. As for the cause, or right or wrong of the war, the general superintendent of the American syndicate told me, in my room at the Alameda Hotel in Guaymas, that they (the syndicate) had the Indian lands and the

Indians were fighting to get them back. That, he said, was the whole trouble put in a nut-shell.

Many of the Yakis, during the disturbance, stayed on the Mexican ranches where they had been employed, and did not participate in the war. They were known as peaceful Yakis in contradistinction to the hostiles, but of recent years all distinction has been confused and the Yakis as a tribe have been called murderers and bandits and declared to be worse than the old Chiricahua Apaches. The declaration still appears from time to time in the American press, but it is not, and never was, true. Every Mexican in Sonora at the time the war started knew the Yakis to be quiet, hard-working, intelligent Indians. Everywhere I went on the ranches they were well spoken of. I saw and talked with scores of them on the ranges, in the corrals, in the fields, in their camps. They were always kindly and gentle—more so, I used to think, than their progeny. The small boys ran about naked like brown lizards, and used to look at me out of the corners of their eyes like coyote puppies. Their black hair was bleached to a copper color, their thin bodies were sun-scorched, and their expression

was half-wolfish. But I never knew any harm to come from them.

Those were the days of open-handed hospitality on the Mexican ranches. No introduction was necessary. People came and went on horseback, hung their saddles on pegs and their hats on the floor, and stayed as long as they liked. Everywhere I stopped I was welcomed. The owner came in from the fields, knocked off work for the day, produced tequila, coffee, cigarettes, and sat down under the porch for a talk. The coffee-pot and bean-pot were always over the fire and in constant requisition. There was no great variety of food at the table, but the meats and vegetables were tastily cooked, and, if there were young girls in the family, there was singing, to the accompaniment of the guitar, during and after the dinner. When it came to retiring for the night, one simply dragged out a rawhide or canvas cot to whatever part of the premises he pleased, spread his blankets, and went to sleep listening to the dogs chasing coyotes. The hospitality was very simple, whole-hearted, and very gratefully received because of its fine spirit.

The amusements on the Sonora ranches were

limited, but there were horses to ride and strange things to be seen by riding. Every Sunday was a *fiesta*. People would gather for a wolf-hunt, a cock-fight, or a horse-race—the latter two being easily improvised. Interest in the race never waned because there was always much betting, plenty of jockeying, and some fine exhibitions of bareback riding. The Mexican peons (half-breeds) and Indians were superb riders. Our cowboy at the north was merely a *nouveau* compared to them. Riding was their inheritance as well as their lifelong occupation. It seemed to me always better understood in Sonora than any other part of Mexico because, perhaps, it was an open country. Farther south toward the City of Mexico and beyond it in Oaxaca and Tehuantepec there were larger ranches, more peons, more horses; but I never felt that the southern riders had the skill in riding of the Sonorans.

Hospitality at the south was quite as open-handed as at the north, and the great *haciendas* below the City of Mexico had more to offer in food, lodging, and entertainment, but I somehow always fancied the meagreness and the generous spirit of those in Sonora who had little but were willing to share that little with you. Alas! that

most of it has gone by! The hospitality was abused and the door had to be closed. Extending the brotherhood of man by travel and contact sometimes produces unexpected results.

CHAPTER VI

TRAILING IN MOCCASINS

Riding in the desert, or elsewhere, with the horse doing most of the work, seems an easy way of getting over the ground. It is certainly not to be despised, and many are the things that may be seen to advantage from a horse's back. Besides, you can go far in a given time—something that may also be said for the automobile. But neither from a horse nor from an automobile can you see well or accurately the small things of creation. You are too high up to count the petals of the flowers, or to watch the trap-door spider emerge from his den, or to trail a side-winder in the sand. Many things must be seen afoot. There are also advantages in being alone. Oftentimes you wish to stop, turn back, examine anew, perhaps photograph, or sketch, and the impatience of a companion to get somewhere in time for dinner is something of a nuisance.

Now being afoot suggests at the start that your feet are to bear the brunt of the work and should be properly shod. And just here comes in a differ-

ence of opinion or of experience. The average white man thinks himself well shod when he is *heavily* shod. He likes a double-soled army shoe with calks in it—preferably one that laces up half-way to the knee. If there be no high upper he wears a pigskin puttee, with khaki trousers, a stiff coat, and a cork helmet, or something equally cumbersome. As for the shoes, he tells you that he likes the calks because he wants to be sure of his footing; but on shelving rock a nailed shoe can never be trusted for a moment. More than half the accidents in mountain-climbing, in the Alps or elsewhere, are due to the slip of this same shoe. The weight of it leads, too often, to fatigue and stumbling, while the heat of it is discomfort ever and always. As protection against stones, lava, cactus, chaparral, snakes, it is wholly unnecessary. Any one who walks much in any dry country mechanically watches the placing of his feet and does not go blundering into snakes or cactus patches or lava-beds. After a time his feet pick and choose for themselves where they shall step and what they shall avoid, just as his body pushes through brush without getting tangled in vines, or his hands turn aside dry twigs without being punctured by spines.

The heavy shoe or boot of any sort is not the foot-gear for a dry country, though it may serve moderately well in wet-snow regions. Instead of following the Englishman, who usually insists upon dragging London into the tropics, I always preferred to follow the Indian, whose knowledge of his own country and its necessities was better than that of any one else. In travelling over sand or grass or mountain country, I always wore the moccasin. It was light on the foot, pliable, allowed every foot-muscle to play, and held fast wherever one put weight upon it. Hundreds of times in the desert mountains or in the high Rockies, or along the ledges of the Grand Canyon, I have gone down to the edge of shelving strata and looked over precipices into far depths with a feeling of perfect security. I knew the moccasin would not slip, for I had the feel of the rock in my foot. Such ventures with an army shoe or any heavy-soled foot-gear would have been highly dangerous, if not impossible. In jumping crevasses, in vaulting with an alpenstock, in climbing rock faces, in travelling through grass or sand, or creeping along lava-flows, the moccasin has always proved a success and a delight to me. With it I was springy on my feet, and could run on for

long distances with not half the fatigue that would come from wearing an army shoe.

But it should be said that I am not speaking about the moccasins of the present-day shoe-store or of the curio-shop. Those moccasins are not made to wear but to sell. They are made of thin skins of goat or sheep or young calf (not moose), are not properly dressed, and have no wearing quality. Good buckskin is no longer obtainable, but in my desert-walking days I had the true skin, taken from the back of the mule-deer and Indian tanned. I made my own moccasins. They were pointed-toed after the Sioux model which I had learned in my youth. Instead of sewing them with sinews, as the Sioux, I used thin buckskin thongs, sewed an upper upon them somewhat like a spat, and put on an extra sole and heel of heavy hide. The extra sole and heel would last for about one hundred and seventy-five miles. They were then worn through, and I replaced them by new ones.

I am still cherishing some of that deerskin for a last pair of moccasins, conscious that I shall never see its like again; but the traveller of to-day will probably never know anything better for desert wear than the rubber sneaker or the rubber-

soled tennis-shoe. Some of the Indians in the Southwest still wear moccasins with rawhide soles, but they are not satisfactory. The sneaker affords a better foothold.

Aside from lightness, durability, and ground-gripping quality, I always found moccasins a necessity in hunting because of their noiselessness. One could not still-hunt deer in a dry stick-and-leaf country with a heavy boot. The grind of gravel under your boot would start a mule-deer bounding long before he had either seen you or winded you. If you placed your feet right, the moccasin was soundless. I well remember one day in the Mohave Desert, when I was walking without a gun, seeing a coyote pawing or eating something behind a small but rather thick brush of cactus and greasewood. The wind was blowing from him to me and I could almost smell that coyote, but he could not smell me. Neither could he see me. I sneaked up so close to him that I could touch the brush, and yet he did not hear me. A momentary twist of the wind, however, gave him my scent, to which he violently reacted, and with a tremendous bound sprang clear over the brush to my side. So close he came to me that I made a desperate kick at him,

to which he responded with a steel-trap snap of his teeth. My first momentary impression was that he was attacking me, but the speedy manner in which he put distance between us as soon as his feet struck the ground convinced me that he had sprung at haphazard, on the scent, and did not see me until in mid-air.

My second summer in the deserts was almost wholly a matter of long walks—usually in circles of twenty or thirty miles about a new water-hole or a railway tank-car. The horse became something of a nuisance and I got rid of him; but the fox-terrier still went with me, and was as tough, as cunning, and as brave as ever. I hunted much that summer, but without a rifle. Occasionally, when hard pushed for something to eat, I shot small game with my pistol, and I had to pot a jack-rabbit frequently for the dog; but I had no inclination to kill large game, or to kill anything merely for the sport of it. Still, I liked to hunt, to trail all sorts of animals and birds, and find out what they were doing, where going, and how they lived. Watching the actions of desert quail, or the play of lizards, or the sneak of a wildcat, or the saunterings of a coyote always proved attractive.

The moccasins on my feet enabled me to move without sound, and my garb was generally neutral or sand-colored, so that I was not conspicuous as an object; but it nevertheless took some knowledge and skill to come up with the quarry in open country. Trailing on dry desert ground is not the easiest thing in the world. Tracking a cottontail rabbit after the first snowfall of the year is a feat upon which every boy prided himself; but tracking a jack-rabbit in the desert is something that every one—white man, peon, or Indian—gives up before he begins. The trail is too faint.

There were stretches of the desert where the gravel floors and basins were so hard and smooth that a buffalo or an elephant would scarcely leave a trail. There were also lava-flows, granite outcrops, and hard mesas where again no foot left any print. It was useless to bother with such places, and the only thing to do was to pick up the trail where it went in or came out. There were often great reaches of wind-blown sand, or beds of alkali or white gypsum, or dry lake-beds with incrusted surfaces, where the hoofs of a deer or the pad of a wolf would show quite clearly for perhaps a day after being made. If the wind was blowing, and the sand or gypsum drifting, the

trail would soon be obliterated. When I found a trail in such places, I had to study out what the game was doing. If the trail ran straight, then the animal was crossing the desert and was bound for some distant retreat in the mountains; if the trail rambled, doubled, crossed, and wandered, then the animal was playing or hunting. I had to make my guess about the animal's state of mind and what would be the general trend of the trail when he emerged from the beds.

It depended upon a good many circumstances whether desert-trailing was a success or a failure. I always found it a mixture of both. Following up three or four antelope in a band, when there were still a few left down in Sonora, seemed a very easy affair, because where one sharp hoof failed to record, another one would; but I was often puzzled over a single mule-deer and many times had to abandon the quest. The pointed toes would push into soft sand or an alkali crust, or leave disturbed stones on loose gravel, but it made no record on the hard mesas or on rock or lava or talus. The soft foot of a lynx or wolf or cougar could not be seen except in sand or loose ground, and was very difficult to follow unless the animal was running or plunging hard upon his

feet. And, of course, the reptiles and small animals left no trace at all except in the sands or white lake-beds. If little wind was blowing the beds and dunes recorded all sorts of footprints —the trail of a lizard or rat or road-runner or quail, as easily as the foot of a coyote or a deer. There you could see the curious throw to one side of the side-winder and would know exactly how and why he got his name; and there, too, were the heavy drag of the Gila monster, the wriggle of the horned toad; even, at times, the dotted trail of the centipede.

Almost all animals have the wise habit of watching their back track. A desert deer, for example, will browse along leisurely through a cholla patch or an open chaparral on the mountainside, stopping to kick a fly off his ear with his hind foot or scratch his back against a dry branch, but never neglecting to look behind to see what, if anything, is following him. This they are always doing, and it is almost impossible to approach them from the back trail without being seen. The experienced still-hunter, following any kind of deer, works off to the side of the trail, perhaps two hundred yards or more, occasionally swinging in to see that he is follow-

ing the general direction. He determines at the start the lay of the land, the habit of the deer at that time of day, whether feeding, lying down, or slowly moving. From this he evolves an idea of the animal's intent and direction, to which the trail is only a general clew. Beating along like a hound on a scent will have only barren results unless you are running the deer down, hound-fashion, as the Indians sometimes do. That means jumping the game again and again until it gets weary and careless and allows of being approached near enough to be shot.

As illustrating the folly of following a deer trail closely, I recall an incident of cowboy days in Montana that may be pertinent just here. I was camped one evening at sunset with some eighteen or twenty cow-punchers on the banks of the Big Powder River. We had in camp a Western surveyor named Sheets who had come out from Miles City to run some lines for a home ranch. He had the reputation in Montana of being a great deer-hunter, and that evening at supper he was bewailing the fact that there was no venison in camp. Almost as he spoke, and while the rest of us were eating, two white-tailed deer put their heads out of the willow brush on a

long thin island in the river just opposite to our camp. Colonel Sheets reached for his rifle, but before he could get it to his shoulder the deer had drawn back into cover. He advised the cowboys to sit still and keep quiet for a few minutes and there would be venison for breakfast. He then started to wade across the shallow water to the point where the deer had shown themselves, and soon disappeared in the brush, as they had done.

I watched the proceeding with blank amazement. I knew the deer could not be rounded up or shot in that way; knew that they would keep a hundred yards or so ahead of him, just out of his sight in the thick brush, and that eventually he would walk them off the far end of the island into the river. As soon as he had disappeared in the willows I took up my rifle, remarking casually that I thought I might get the colonel's deer. I made a half-circle detour back from the river and brought up on the river-bank just opposite the lower end of the island. There, seated on a cottonwood log, I awaited developments. Presently I heard the snap of a twig and the two deer came out on the end of the island, trotted down on a sparsely covered sand-bar, and gave me a good shot. I knocked the buck over, and the doe

with a tremendous plunge hit the deep current of the stream and started to swim for the far shore. I let her go and sat still.

Presently the colonel, breaking his way through the willows, came out on the island's end following the deer trail. He did not see me and so helloed. I answered. He wanted to know who fired that shot. I admitted that I did the shooting.

"Well, what were you shooting at? You scared my deer."

"No. I shot at them."

"Did you hit 'em?"

"Yes; the buck."

"Where is he?"

"Follow the trail and you will come to him."

I crossed over to the sand-bar, by wading the shallow water on my side the river, and we came together over the dead deer. He kicked him and got no response, looked at me from head to foot several times, and then remarked:

"Well, I'll be damned!"

The colonel never quite loved me after that. The cow-punchers nagged him about driving deer for an Eastern tenderfoot. Even they, who knew nothing about deer, saw that the great deer-slayer had dropped a stitch.

That deer watch their back track is common enough knowledge among hunters; but what is less known is that in watching you they are always looking at your eye, not your hand or foot or gun. In thick brush the white-tailed deer, or in the chaparral the mule-deer, will stand still and hide and let you pass within a few feet of him so long as he is sure you do not see him; but let your eye rest for a moment on any part of his dun hide or dark horn, and there is a great bound, a smash and crash of brush, and a rush to get away. He knows instantly when you see him and is ready for a spring.

On a gunless walk one day through the open pine regions of northern Arizona my attention was attracted to some very fresh deer tracks. There had been a shower, the ground was moist, and the hoof-prints were sharp-edged, clean-cut. I made a circle of a mile but did not find any trail leading out. I then began a close examination of every little thicket within the circle. In looking over a small group of bush oaks my eye was caught by a dull-gray spot no larger than a blacking-box cover. The moment my eyes fastened on it the spot jumped—jumped clear over the tops of the bush oaks and started to run. It was

a doe, and she had not run thirty yards before she stopped, turned around, and looked at me. That was suspicious. I immediately went softly toward the place from which she had jumped, moved slowly, and watched the ground carefully. Presently I detected two little fawns, only a few days old, lying flat on the ground with their heads down and their ears back. The instant I saw them they jumped and started to run after their mother—their thin hind legs wabbling but, nevertheless, taking them over the ground very fast. The doe had been hiding and watching my eye, and the fawns had been doing the same thing.

All animals have the habit of watching the eye of the enemy whatever that enemy may be. It is probably a universal habit that will apply to man as well as to beast and bird. If you have an idea that a dog may bite or a horse kick, you do not watch the animal's mouth or heels, but his eye. And, of course, people watch each other's eyes in conversation, in play, in prize-fighting, in love. The reason is not far to seek, because the eye is the index of the mind. There is indication of the mental attitude, and in perceiving or judging that attitude the animal is almost as shrewd as the human.

Almost, but not quite, because I doubt that the average animal, say deer, coyote, or wolf, has so keen an eye as the human. A deer, for example, has a very comprehensive eye for anything that moves, but not for stationary objects. If you stand motionless, he will not discriminate between you and a stump. He may look you over for a long time, and perhaps think you an oddity in the landscape, but if you do not move, he will accept you as a fixture. When he sees you in motion and knows you do not see him, he will often stand still, with great complacency, and survey you for many minutes. The antelope will do the same thing. And nothing seems to please the coyote so much as to sit quietly on a hill and watch you in and out of the landscape and he not moving from his perch.

Motion—any object or animal in motion—seems always fascinating to the deer or sheep family. There were some mountain-sheep (not bighorns) in the San Bernardino Ranges twenty years ago—a few still remain there—and I was much interested in their comings and goings. In the heat of summer they occasionally had to have water and would come down cautiously to some desert drip or pot-hole, watching on every side

as they descended. A wave of a stick would bring the whole band to attention. There they would hang perfectly motionless on the mountainside, for half an hour at a time, watching for a repetition of that motion. With their sand-colored coats they were quite imperceptible to the casual glance, and once your eye had wandered away and lost them it was difficult to pick them up again.

In the eastern Alps I have often observed the chamois feeding on the high uplands and keeping a lookout for the approach of an enemy at the same time. They would nibble for only a moment and then, with heads up, would sniff the air, look above, below, on all sides of them. They came to a standstill over any moving object and watched it intently until it passed out of sight. If it came their way, they took to their heels quickly enough. The antelope, as every one knows, has more curiosity than others of his family and will often, step by step, approach a moving object, stamping and snorting, head up and eyes bulging. His curiosity (or what is in effect the same thing, his undiscriminating eye) is often the death of him. A red flag on a stick, or a hat on the muzzle of a rifle, waved slowly at

intervals, will prove his undoing. He must find out what it is all about, and gets shot for his pains.

Perhaps the birds, as a class, are not so clear-sighted as the animals, though there are enough exceptions to invalidate any rule that one could lay down about it. What, for instance, could be more keen than the eye of the hawk, the eagle, or the vulture? The vulture, as he wheels down a valley, cutting great circles in the air, seems to see everything animate or inanimate for miles around. He is not only beating over vast territory for his own profit, but he is watching the hunt of every other vulture in the sky. When one of them drops to earth it is a signal that he has found something, and from all points of the compass his companions drop after him. It is thought by some people that the vulture scents his carrion prey and arrives at it through his nose, but that seems a mere flight of fancy. No one can prove or disprove it. On the contrary, sight, with which the vulture sees a fellow bird a mile away descending to the ground, is susceptible of direct proof. His eye alone is sufficient to find his quarry.

Often in the desert mountains, resting in the saddle of a range between two valleys, I have

had the vultures, passing from one valley to the other, come within ten feet of me. I have watched their bright eyes for what they could see as I have watched their flight-feathers for a solution of their flying powers, but nothing of information came to me from either. He sees everything, he glides on any air in any direction; but how he does the one or the other I am not able to explain.

All the *raptores* have bright enough eyes, but I am not sure about the game-birds, song-birds, and water-fowl being well equipped in the matter of sight. Those that live by the chase, such as the pelicans, divers, shags, and cormorants, or the insectivorous among song-birds, have some sense of sight or they would not continue to exist; but the mere fact that a flicker digs ants out of a hill or a robin pulls an earthworm out of its hole does not indicate any great acuteness of vision. I have rubbed the head of a robin on the nest with the end of a walking-stick until she closed her eyes and went into a drowse, and I once picked up a perfectly sound woodcock hiding in the grass. A woodcock is supposed to have eyes that see on all sides of him, but I have usually found them rather dull-sighted birds.

Not so the quail and the pheasant. They see

quickly and surely, but sometimes will lie close (even after you see them) in the hope of escaping detection. Crane and geese are very keen-eyed and wary. In coming into a wild-rice lake for night shelter, geese will survey the premises from high up in the air with great accuracy. If alarmed, or even if not entirely satisfied of safety, they will climb higher up in the air with whiff of wing and honk of throat and move farther on; if the appearances do not disturb them they will descend over the open water in graceful spirals straight from the zenith. Ducks are more careless, and some of them, especially the black ducks and winter ducks, seem to have very dull eyes, for a boat in the open can often approach them within shooting distance.

On the desert perhaps the sharpest-eyed of all the birds is the road-runner. His ability in spying out all sorts of reptiles and insects is on a par with his ability to capture them. It is astonishing how easily he will pick up a running lizard—astonishing when the running powers and quickness of the lizard are considered. And the road-runner is the only bird of the desert that can successfully dodge a rattlesnake. The snake is usually rather slow in getting ready to strike.

I have tortured him many times with a stick, and when at last the head has shot forward, I have tried to pull the stick away, but never with success. The fangs would strike it with a spiteful little "tick." But the road-runner ducks or moves to one side with great ease—an ease that comes from seeing quickly when the head starts to move. He is the brightest-eyed bird on the desert, aside from the hawks and vultures.

Some of the desert insects seem devoid of sight, and others, even with pronounced eyes, seem to see little. All the scorpions, centipedes, and most of the tarantulas have little vision and less imagination. The tarantula will bite if poked with a stick—bite through a switch as large as a lead-pencil—but his eyes are poor affairs. Some of the spiders are bright enough in eyes, and some of the beetles and bugs have enormous telescopic eyes, but they are used only at short range. The vision is not too comprehensive and calls for much adjustment.

The reptiles, being predatory and living on other life, have developed rather keen sight. A lizard sitting on a stone seems to see little, but, as a matter of fact, he sees everything within fifty yards. Sometimes, when curious or aston-

ished, he will stretch his neck to look; at other times, when excited, he will bob up and down with his body, keeping watch the while; but as soon as he thinks things are getting too near for comfort, he will retreat with great expedition. The horned toad that lies just under your foot, and looks stupid and sleepy, sees you clearly enough; but he presumes on his protective coloring and oftentimes declines to run. To appreciate his sense of sight, one should see him stalk ants and small flies. He moves very slowly, crawling almost like a cat, until within firing range. Then a long tongue shoots out, too quickly even to be seen, and the ant or fly simultaneously disappears—vanishes from the face of the earth. The young horned toads (of a pinkish-coral color and not quite so large as a quarter of a dollar) tag around after the older ones and learn the fly-stalking business very early in life. They are experts at it long before they are half-dollar size.

The bright eye of the snake is proverbial. And it always seems open and glittering. That it dazzles, fascinates, charms, is an old story for which I have never been able to find any confirmation. Birds, with or without young, get much excited over a snake and will dance, squawk,

ruffle their plumage, and appear crippled or helpless; but they always manage to keep out of the snake's reach. They are caught sometimes unawares, especially near water-holes where they come to drink; but they are not charmed in the full presence and, through a fatal fascination, unable to escape.

When you come up with a snake you are almost always conscious that he has seen you first. He lies there quite still, with his eyes watching your every movement. I once came upon a rattler that had a live gopher half-way down his throat. The gopher's head and shoulders were sticking out of the snake's mouth but the rest of him was submerged. He had given up and was no longer struggling. Both his eyes and those of the snake were fixed full upon me when I first saw them. I stood by for half an hour without impeding the slipping process, until the gopher's head had almost disappeared. Then I interfered with a blow of my walking-stick. Both the snake and the gopher jumped under the blow and their eyes bulged. I squeezed the gopher out of the snake's mouth, and, after half an hour of tumbling about in the sand like a drunken man, he crawled off, apparently not much the worse for his experience.

I had always thought the range of a snake's vision was a matter of, say, ten or twelve feet until one day I saw a rattler crawling along under the brow of a hill, and, from his observations at stated periods, evidently somewhat interested in something just over the hill. I backed away and came up at another angle of vision to find a flock of very young quail some twenty or thirty yards in front of the snake. I watched him trying to stalk those quail for half an hour. He had no cover to hide behind and at last he came so close to the quail in the open that the old one called them, and they hurried away.

That was a great surprise to me, for I had no idea that a snake could either hear or smell, and his eyes I believed to be useful only at short range. But nature and her creations are always offering strange surprises. As soon as we are sure of something that never, never happens, lo, it comes off under our very nose in the most commonplace, matter-of-fact way.

CHAPTER VII

MOUNTAIN-FOREST TRAILS

THERE are high places, ledges, and escarpments in the desert mountains where a horse cannot carry you and your heavy boots may imperil you, but these are playgrounds to the man with moccasined feet. He moves about on ledges with confidence and drops from terrace to terrace down an escarpment with the greatest ease. But he should always look before he drops and find out just what he is to fall upon.

I learned this with some heart-throbs one day when figuring casually upon swinging down over a ten-foot ledge to a rocky terrace below. I thought I would have a second look, just to see how high the ledge was and just the quality of the rock upon which I was to alight, when, lo and behold, there, curled up on my landing-place, was a charming red-brown rattler. I should have landed upon him very beautifully no doubt, but how should I have gotten away from him?

The snake seems always more at home on the rock ledges of the mountains than elsewhere.

And he seems to prefer the higher ledges of the ranges, especially during the summer months. Some twenty or more years ago, when a flume was being built to take out the waters of the Kaweah to make electricity for Visalia and other towns in California, it was found necessary to carry the flume far along a mountainside some eight hundred feet above the valley. Much picking and blasting of rock was done, and the net result in snakes was about ten rattlers a day. In the valleys and along the Kaweah, where I was fishing, I found not a snake a week. During the winter the rattlers hibernate in the rock crevices or small caves of the mountains, sometimes in bunches that are twisted and wound together until they look like the mesh of knotted rope used on tugboats to ward off pressure from docks or other boats. In their winter quarters, in a bunch, they are very sluggish. A pounding with the butt end of a rifle causes a shrugging and shrinking but not an attack.

One is always more or less astonished at the inaccessible places in the mountains—the shelves and rock points—chosen by a rattlesnake for a summer resting-place or a hunting-ground. At the Grand Canyon I tramped the Tusayan Forest

all one summer, over a fifty-mile range, without discovering a single rattler; but under the Rim, along shallow rock shelves, on rocky promontories where I had difficulty in climbing, there I found the snake very much at home. One day I crept along a narrow ledge two hundred feet under the Rim and, not without some peril, finally came out just below an Indian *cache* that I had noticed from above. For days I had been speculating over it and wondering how the Indians got to it. When, at last, I reached it I found it was a stone and mud-mortar affair about four feet square, built on a thin shelf under an overhanging rock. The Indians must have reached it with ropes or ladders from above, for from below the shelf presented ten feet of abrupt rock wall.

By much manœuvring with my alpenstock I finally got my hands on the edge of the shelf, drew myself up, and swung around to a sitting position. As I did so I was amazed to see a large rattler coiled on the shelf within a few feet of me. He was bright-eyed, alert, and alarmed, for he began to rattle. I could not imagine how he ever got there unless he dropped from above, which seemed an impossibility. That he came from below, wriggling up a steep face-wall, was equally

impossible. A salmon will run up a waterfall with the aid of the water and a strong tail, but the snake had neither the water nor the fish-tail. He might have been there for a long time but that would not in any way explain how he came there originally. I dare say he had abandoned hope of getting down, but I eased his mind by helping him down rather abruptly.

In the San Bernardino Range (it separates the Colorado Desert from the Mohave) I had a resting-place on a high saddle between two valleys. It was merely a flat rock upon which I was accustomed to stretch out on my back and lie still, watching the vultures swing up and over and into the opposite valley. It was an isolated rock about ten feet long, and I never for a moment questioned its safety as a resting-place. I had gone to sleep there in the sun many times quite unsuspicious of danger; but one day I awoke rather suddenly. My dog had been sniffing about the ground-line of the rock just under my elbow. All at once he sprang back with a snap of his teeth and a growl. His action was followed by the buzz of a rattlesnake. Then I did some springing back. I split a stick and wormed the snake out of his retreat under the rock, and then began poking

around the opposite side for more snakes. I dug out three fat tarantulas and a scorpion. After that I took my midday *siesta* elsewhere.

That experience was rather unusual as regards the smaller game. The tarantula takes kindly to sand-banks, the trap-door spider to flat ground, the scorpion to dead wood or other protecting cover; but none of them cares much about the mountains. The warm desert valleys are their preference. All life decreases as you ascend, and in the mountains, high up on the bare tops or in the chaparral, there is only an occasional sheep, a bear, a deer, a jay, and a quail. Hunting or trailing up there is difficult. The only footways through the chaparral are ones that are perhaps made by various animals pushing the growths aside and forming a half-blind trail. Sometimes along such a trail one will see in the dust the feet of quail, the hoofs of deer, and the pads of wolves, but it is quite useless to follow them. Stalking in that jungle is impossible. The only way to thread it, aside from the animal runway, is on your hands and knees; and the best thing to do with it is to let it alone.

In the spring of the year this chaparral is often very beautiful with blossoms of buckthorn, wild

cherry, white lilac, manzanita, and wild mahogany, while the valleys below are blue and pink with alfilaria or bright with violets that are not violet-hued but golden. The endless variety of flowers on the desert after the winter rains has exhausted the adjectives of many a writer. I never thought to describe the red and blue and gold and white of them. It was sufficient for me to see them, to stop and linger over them, and to love their beauty. It was not the rambling strontium, or the brilliant flowers of the various cacti, or the great cream-colored bells of the yucca that made the strongest appeal, but the small baby blue-eye, or the yellow mimulus, or high up on the face-wall of a mountain, rooted in a crack of the rock, some pale-pink flower on a long thin stem that waved and rolled in the breeze, and fought off heat and drought for the joy of living and the urge to bring forth after its kind.

Ah! how very charming those pale beauties that blush unseen, living and dying unknown and unnoticed that the species may not perish from the face of the earth! They waste little sweetness on the desert air, for wild flowers are generally scentless, nor do they waste any beauty, for beauty is its own excuse for being; but they

are so isolated, so lonely, so forsaken of their kind that one sighs over them and, perhaps, indulges in pathetic fallacies regarding them. Flowers on the desert! They are more splendid than shining gold or glittering diamonds.

For several days on the Silver Valley Ranch in the Mohave Desert, with John Muir, I kept bothering him with questions about flower and weed and shrub. What was the name of this or the variety of that? Learned botanist that he was, his usual answer was: "I don't know." The desert growths puzzled him and some of them were wholly incomprehensible to him. He was not afraid to say, "I don't know," because there were so many things he did know. When Muir gave it up, no one else ventured a further guess. In Sonora, Sinoloa, and Chihuahua I asked the Indians and the peons the same question, over and over again. "How do you name that flower?" or "What is that tree?" The answer was usually "*No sé.*" Sometimes they gave me a local name that meant nothing. I had to christen the flowers and shrubs with names of my own or (as more often happened) let them go unnamed. Doctor MacDougal has done much to straighten out the botany of our deserts, but there is still a *terra incognita* there.

On the desert one is always pausing to wonder over some detail of plant or insect or reptile, stooping to examine some vein of rock or flow of lava or spill of small carnelians beaten into a floor. The part attracts one, piques curiosity; and yet it is not nearly so wonderful as the whole —the complete unity of the desert under almost any light. The golden-crimson dawns, the fiery sunsets, seem to attune the desert and put all its elements into complete accord; but it also goes together as a piece from dawn to dusk with a different light and a different tone of color for every hour. The lilac, the rose, the golden envelope of air are in effect so many colored glasses through which we see the world. The mountains, mesas, and basins are all tinged by the prevailing hue or tint, and even the blue of the sky is tempered by it. The result is a color-unity in landscape the most astonishing ever seen. It is possibly this exact unity of tone that baffles the landscape-painter who would put the desert on canvas. Many have tried and very few have succeeded.

Up at the Grand Canyon the blend is less subtle, the variety greater; but here another difficulty faces the painter. He is baffled by the

scale—the huge proportions, the immensity of things. The picture, instead of being picturesque, is enormously panoramic, scenic, topographic. In the high thin air the light is sharp, the color brilliant, the shadows deep blue. Distance runs out endlessly, perspective flattens, planes collapse, promontories and valleys cut off the foreground and middle distance, clouds and thunder-heads loom in the background. In its way it is quite as impossible to paint as the desert. But its detail is just as interesting to study. The geology is marvellous, the local coloring wonderful, the plant life beautiful.

You will never see elsewhere such beauty in the wild flowers as here. The long-stemmed, pale-hued growths that root in the fissures of broken standstone, and fight for soil and water, are the most graceful, dainty, and romantic of plants. They nod and bend in the wind, waving softly but securely over some precipice, with no thought of anything but fulfilling their mission on earth and perpetuating their kind; but they are apparently contented, happy, serene, at peace. Under the Kaibab wall, on the south side of the Canyon, are small groves of Douglas spruce that flourish only under the protection of the Rim.

Again how serenely and peacefully they seem to live! They hardly ever stir; but their arrow-headed tops lift up to the sun, their feathery sprays glisten, their splendid green shows joy in life. There they stand together in groves that apparently live on forever, the new taking the place of the old, the beauty of the whole being renewed continuously in the part.

Not the least of nature's wonders are her trees. At the Canyon the growths are not vigorous because the soil is thin, the rock close to the surface, the rain supply uncertain. The Arizona or Western pine that makes up the bulk of the Tusayan Forest, the pinyon, the cedar, the spruce, are none of them prodigal in growth. Not so with the California redwoods that grow on the mountain slopes of the Sierra. As every one knows the giant *Sequoia* is not only the largest of all trees but it is the oldest. Muir told me that he had counted the rings of some of the fallen, and had made out that there were trees in the California groves at least four thousand years old. He added that, barring accidents, there was no reason why the *Sequoia* should not live forever.*

* The species has lived a very long time, for its remains are found among the deposits of the Tertiary Period.

He meant by that that the tree suffered from no blight or insect or disease. It is a cedar, and perhaps its pungent odor keeps off the borers and sappers. The trees come to violent ends rather than slow decay. Of these, fire is the worst. Lightning destroys the top, and winds twist off the enormous arms so that all the lower half of the trunk is branchless, but the tree always makes a stout resistance and tries to repair the damage by throwing out new branches and new sprays. All the larger trees of the redwood groves show the scars of wind and lightning in their tops, but they hold fast and live into the centuries and shoot up new leaders to the sky. They are the most wonderful trees in the world.

One never comes to know the redwoods until he sleeps under them, and wakes in the morning to lie for a long time looking up their cinnamon-red trunks into the green foliage of their tops. The bark is deeply indented, sometimes two feet deep, and these indentations appear like the flutings of an enormous Corinthian column. The illusion is in measure helped out by the swell-out of the trunk at the base where the great roots go down into the earth and the spread-out of the branches at the top into an efflorescent capital.

After a week a sense of the bigness of the redwoods begins to dawn upon one. And their arrowy majesty and mighty lift are more comprehensible. How straight and strong and splendid they are! People, with a genius for seeing the infinitely little, camp under these great trees, and in the morning perhaps are amused by the antics of the Douglas squirrel (a Western red squirrel) chasing himself around the thirty-foot trunk; but they do not see the tree. They gaze beyond the three-hundred-foot top into the sky, watching the wheel of a hawk or a vulture, but they do not see the sky. The story goes of some dullard presented to a great queen at one of her receptions, and the only thing he saw about her majesty was the wart on her nose. But how can one miss the majesty of these mighty trees! They belong with the Grand Canyon and Kanchanjanga —among the sublime wonders of the world.

Under the redwoods the ground is covered with heavy mosses or beds of ferns or spongy deposits of century-old foliage, or perhaps huge rocks. There, too, you will see pale wild roses in clumps —the fairest-petalled beauties ever seen in or out of the forests—and underneath, all around them, sometimes covering acres of ground, are small

nodding violets, with countless other cups and stars and hoods and slippers, without a name and without a scent, but, nevertheless, charming in color and lovely in form. It is a pleasant place to ramble afoot, and you can ride there, too; but it is inadvisable if you wish to see the trees above or the flowers below. As for a camping-ground, it is the only one in a forest that I ever relished.

Bears! Oh, yes, there were bears there twenty-five years ago but they never harmed any one then, and now there are so few left that even a foolish horse will graze at night in a mountain meadow with no winding up of the picket-rope. Old Ephraim the Grizzly is quite extinct and Bruin the Black hides in the densest portion of the Sierra, where you with your horse will never go. If you see the pancake-like foot of Bruin in the mud near a spring, you need not jump. It is the boot-heel of Brown, your fellow man, near it that should cause you fear. Brown's automobile killed eight hundred people in New York City alone last year, and the Bruin family never killed that many people in all history, except as the Browns shot them and they defended themselves.

The forests of California, almost all of them,

open out at intervals into sunlit spaces where the trees give way to meadows spattered thick with flowers and waving free with grasses. Again you can ride, if you care nothing about the things you are riding over; but if you have a tithe of John Muir's love for the slopes of the Sierras, you will get down and lead your horse. The mountain meadows of California are places where one can drop into sentiment, lose one's self for a moment in the beauty of creation, grow emotional over the purity of petal and leaf, sunlight and shade, curve and color and blended blue.

Unfortunately, these wonderful places are now being desecrated, if not destroyed, by the automobilist—the same genius that has invaded the Yosemite and made that beautiful spot almost a byword and a cursing. No landscape can stand up against the tramp automobile that dispenses old newspapers, empty cans and bottles, with fire and destruction, in its wake. The crew of that craft burn the timber and grasses, muddy up the streams and kill the trout, tear up the flowers, and paint their names on the face-walls of the mountains. They are worse than the plagues of Egypt because their destruction is mere wantonness.

The farther north you go on the Pacific coast the less desirable becomes the camping. The timber gets denser, the ground much wetter, the going, either asaddle or afoot, much harder. When you get into Alaska, or even British Columbia, the undergrowth becomes very thick (you sometimes have to cut your way with an axe), the dews are drenching, the mosquitoes and flies are deadly in their persistent punch. You need a screened tent with an elevated water-tight floor. With these features comes that omnipresent consciousness of being shut in and away from the sunlight and the sky.

Even in the magnificent pine forests of Oregon —the Siskiyou region, for example—there is the feeling of miles upon miles of arrowy stems reaching up to the sky. For a hundred feet in height the trunks stand branchless, sprayless, coneless; then they begin to feather out wherever a ray of sunlight invites them. They crowd so closely, they spread so densely, that finally they shut out the light of the sun. For hundreds of years they stand in dark ranks swaying gracefully and rocking perhaps a little in storms. Usually they are motionless. The snow of winter falls on their tops and sifts through their needles to the ground, or the

rains of summer trickle and drip and slip to earth from their sprays, but the great trees stand unmoved, cold, silent, forbidding. Around their roots are the mosses of centuries, and springing out of them are flowers great and small. I have never seen elsewhere so many small nameless flowers, lying in such vast beds, and carpeting the earth as with some precious Persian tapestry. Over these low-lying petals are berry-bushes, syringas, purple clematis, great rhododendrons fifteen feet high, with flowers a foot in diameter. There never was a more fertile jungle than the Siskiyou.

But not a place for riding and not too good a place for walking. The ground is cumbered with decayed timber and mosses. In the great slashes through the forest, called "windfalls" and "burns," where tornadoes and fire have played havoc, you cannot go at all unless you can walk dead tree-trunks that lie criss-crossed on the ground, sometimes a half-dozen layers one upon another, and the topmost, where you walk, perhaps twenty-five feet in the air. You need all the feel and grip of your feet in walking those thin pine trunks that sway under your weight like a tight-rope. Elsewhere in the forest with your

feet on the ground you will find the going is not too easy. Berry-bushes, devil's-clubs, enormous ferns cling to you and trip you up; the steep escarpments and enormous slides throw you down. By the end of the day if you can creep into some half-opening in the forest and strike a camp you are fortunate. More often you build a fire under a rotten stump and spend the evening with the ghostly ranks of pines about you.

This is decidedly lonesome. Night in the forest, with no sky or stars or wind or sound, is not to the average liking. One loses his sense of direction after he has turned about in camp a few times. And he never has any feeling of security. One does not worry about snakes, for there are few of them, nor over bears, though there may be many of them, nor over panthers or cougars, though they occasionally are in evidence; but he somehow feels that the animals have the advantage of him and can stalk him in his little camp as he in turn perhaps has stalked them in their various covers. The mere idea that the animals of the forest are looking him over as he sits by his camp-fire, or sniffing at him on the tainted wind, rather irritates him. Perhaps when he hears the dull break of a dead branch in the

moss and looks that way to see a pair of eyeballs shining like the lamps of a miniature automobile, he raises his gun and fires. There is a rustling and thrashing and kicking in the brush, and the next morning when he goes out to look up that dead panther he finds only a poor doe or a half-grown fawn whose curiosity led it to the light and caused its death.

Well, at any rate, it was the snarl of a panther that was heard earlier in the evening, and that long-drawn bay in the late afternoon was a timber-wolf. One should take no chances with glittering eyeballs. They are dangerous even in the head of a deer—that is, to the deer.

CHAPTER VIII

CANOE AND PADDLE

The paddle—the thin whitewood paddle of the Sioux—came to my hands rather early in life. Minnesota was the first Western health resort to which Eastern physicians began sending patients, and thither in 1868 my family went for the benefit of the health of an older brother. I was taken along, probably because the family knew no way of leaving me behind.

Minnesota was at that time something of a wild country. The Milwaukee and St. Paul road had not been built, travel was by flat-bottomed steamers on the Mississippi, and towns were few and sparsely settled. We stopped in the Mississippi Valley at a town almost opposite the mouth of the Chippewa River, and from there during the next half-dozen years I made many excursions. They seemed not very unusual or remarkable events then, but to-day they sound a little prehistoric owing to the many swift changes that have taken place in that northwestern country.

The river-basin and the Minnesota country

held plenty of Sioux at that time (it was only four or five years after the great Sioux massacre led by Little Crow) and there was no difficulty in a boy making acquaintance with Indian boys and seeing the redskin on his native heath. I was taken into the tepees at once—my first entrance being at the invitation of an Indian boy who led me into his family tepee and sat me down on a pile of unskinned, half-decayed, and very odoriferous muskrats. When I discovered by the smell what I was seated upon, there was a strange chuckle went up from my companion and two fat old squaws, one of them his mother. That was the Indian idea of something funny.

Before that introduction I possessed a working knowledge of muskrats. In fact, my first glimpse of Indians was one day when I saw a canoe coming across the Mississippi headed for my side of the river. Of course I went down to the water's edge to meet that canoe. Two Indians were seated flat in the bottom of it, and around them, even over their legs and high up on their waists, almost to the top of the canoe, were heaped dead muskrats and beavers. What a sight for an Eastern-bred boy! I had never seen anything like it.

That was also my first sight of a dugout canoe. It had never occurred to me at that time that Indians could go about in anything less poetic than a cream-white birch-bark canoe with curving bow and stern. The romance of the redskin was still with me, though I had already been stripped of the delusion that he always wore feathers in his hair and paint upon his face. From engravings in books I had gathered that he even went to sleep in a war-bonnet, but I soon learned that feathers and paint were put on only in times of war or ceremonial dances. The Minnesota Sioux in 1868 were still wearing, to some extent, buckskin shirts, leggings, and moccasins; but the squaws were, even then, taking kindly to pale-face calicoes; and the big chiefs, when they got government money for lands, occasionally bought silk hats and black broadcloth suits, which they wore with no vestige of shirt or collar. The rank and file were far less magnificently garbed. Those who hung about the small towns took up with the cast-off wearing-apparel of the poor whites, except for moccasins; and those who still lived in tepees retained much of the old tribal costume.

But to return to the canoe. The birch-bark in 1868 was still used on the rivers and lakes of

the Northwest, but I always fancied the Indians disliked it. When I came to use it I found it, almost at the start, a picturesque swindle. Its only virtue was its lightness, and that was, at the same time, its chief defect. It sat high out of the water like an egg-shell, and the winds would blow it about with maddening persistence. In crossing a lake, for instance, the bow would be caught by every gust of wind and the canoe swung out of direction. And the drift with the wind always had to be made up by hard paddling. When the birch-bark was heavily loaded and rode low in the water, it travelled better, but it lost headway the moment the paddling ceased. Its light weight lent it no impetus or carrying power.

In addition, it was a frail craft. It was made of slight bark material, with knees bent from split saplings, and supposedly made water-tight with pine pitch. But it never was wholly water-tight and the paddler almost always sat or knelt in a puddle at the bottom of the canoe. If it started out in life water-tight, it soon got snagged on a sunken log, and after the first hole was punched in it, there was never a complete recovery to normal. Its lightness made it portable from lake to

lake, but it could not stand much rough handling without breaking. Even in grounding on sand or mud banks, in getting in and out of it, or carrying heavy loads, there was the fear of strain and wrench on its structure. It was never heavy enough for a working craft.

As for a hunting canoe, the birch-bark was probably the very worst imaginable. The high prow would catch ripples under the forefoot and make a beating noise. If there was a broadside wind, the waves would reverberate with a drum sound from the ribs. Sneaking on ducks, geese, or deer was well-nigh impossible with it. And, again, in working through sloughs lined with flags and reeds, or across lakes filled with tall stalks of wild rice, the edge of the canoe would rub and cry and sing all sorts of notes. The hollow craft would respond like a horse-fiddle, and the paddler in turn would indulge in curses, not loud but deep, as flock after flock of wood-ducks or mallards got up, just out of gunshot, and splattered up and away across the lake. The birch-bark never was a success except as a poetic adjunct to fiction. It dropped out of my experience almost as quickly as it dropped in.

The Sioux substitute for the birch-bark was the

dugout. Full-blood and half-breed and early settler all used the dugout. It was cheap, easily made, and serviceable. A pine log, an axe, a fire, some slight ingenuity mixed with labor, were all that was necessary to its making. The model of the dugout was the birch-bark, but, instead of being stitched together and chinked with pitch, it was simply hollowed out of a solid log, smoothed and rounded and brought to a high cutwater edge at bow and stern. When made it was substantial and had all of the qualities which the birch-bark lacked. It rode low in the water, made no reverberating sound from waves, pushed through reeds and rice with no scratching, held its headway, and was water-tight.

But more than any other canoe was it cranky. It rolled over almost as easily as the log from which it was made—that is, with the *nouveau*. Those who had grown accustomed to it stood up in it, jumped in or out of it, shot from it. Like riding a bucking horse, it was largely a matter of confidence. As a boy I quickly grew used to it, hunted and fished in it, swam with it, dragged it up on the shore, turned it upside down, and slept under it. I know not how many hundreds of miles I may have gone in it, through rivers, sloughs, and lakes, while still a boy.

My first dugout I got from an Indian for the reasonable sum of two dollars. It was only twelve feet in length and was guiltless of paint, rope, chain, or name. Naturally, I gave it an immediate coat of pale pink with red trimmings, and at the bow, in brilliant orange, I lettered the name "Logan." Having thus given vent to beauty and romance, I chained the canoe to a wild plum-tree near the water's edge with the idea of allowing it to dry out. Two rivermen chanced along that way in my absence, and, discovering that there were ripe plums on the tree, sat down in the shade, ate the plums, and unsympathetically pelted the wet canoe and "Logan" with the rejected skins. It was a sorry sight when I came upon it some hours later. I got out my wrath and went after those rivermen, but the trail took to water, and I never caught up with them. Being greatly grieved over the wreck of my color-scheme, I repainted the whole canoe a lead tone, probably in token of mourning. That chanced to be a very good hunting color, and much good hunting came to me in that revised dugout.

And some perils also. The first one came in the early spring, with the Mississippi swollen a mile wide and running swift with fields of jostling ice coming out of Lake Pepin. A boy friend

and myself had been up in the Wisconsin bottoms shooting ducks and were returning home in the little dugout, feeling our way through the ice in crossing the river. About half-way over, a loon came flying by the canoe. My companion caught up my heavy duck gun and, before I could stop him, shot at the loon broadside from the canoe. The inevitable happened. The heavily loaded gun kicked him against the side of the canoe, and in a second it had rolled over and we were in the icy water.

I remember it was very cold spring weather and I was heavily dressed, wearing a buckskin coat, the pockets of which were loaded with ammunition. In addition, I had on rubber wading-boots that came up and buckled around my waist. When I went into the water it seemed as though I could never stop myself from going down, so heavily was I weighted. When at last I turned under water and began to come up, it seemed many minutes before I reached the surface. Even then it was not the open surface, for I came up under a piece of ice. Horror seized me, for I feared that perhaps it was one of the huge half-acre floes, and that I would swim far under it instead of out from it. I opened my eyes to catch the

direction of the lightest water and pushed on the floe with my hands and head. It gave way, being little larger than a barrel-head.

I got to the dugout, where I found my companion lying across the upturned bottom. After some persuasion, he helped me right it and bail out some of the water, after which I swam to the stern, put my hands on either side and tried to lift myself through my hands into the canoe. I succeeded merely in sinking the canoe into the water. I was too heavy with my wet clothes for so small a craft. We then tried to push it through the water, but the interference of ice gave us no encouragement. In half an hour we had grown very numb and had not gone fifty yards. Either shore was half a mile away, the water was very deep, very rapid, and oh, how cold! It then looked as though two boys were booked for Davy's Locker.

No use to call. There was no one to hear, no one in sight, nothing human anywhere. We clung to the canoe for another half-hour, and then I noticed far down the river two black stick-like objects and from them proceeded some smoke. I knew it was a small river-steamer working up through the ice to gain a prize for the first boat

to open spring navigation through Lake Pepin. We waited some more, drifted a mile or more, froze some more. Then we began to yell. The north wind carried our voices. The captain on the hurricane-deck heard us, and immediately after we heard him coming into action with a volley of oaths at the deck-hands. A boat came down from the davits with a smash on the water that threatened its existence. They picked us up—two very cold and nearly collapsed boys—took us to the steamer, stowed us under the big boilers, where we got baked back to life, and finally launched us again in our canoe. I remember when I got home that my dear mother asked me if I had not thanked God for saving my life, to which, boy-like, I answered that I had not, but that I had thanked the steamboat captain. It was years before that remark ceased to be flung at me by the family.

I learned by that early river adventure to tie my gun to the canoe in crossing deep water. I had lost an exceptionally good duck gun. It went to the bottom in forty feet of water while the things we cared little about, the dead ducks, floated about us in pleasant mockery of our plight. Some other things also were learned, namely:

do no shooting broadside out of a small canoe; do not fancy you can perform, heavily clad and in ice-water, the same feats of climbing in and out of a canoe that you did in summer weather in your bare skin; do not be too sure of some one at hand to rescue you.

But there were always new things to learn and new accidents to happen. Only a few months later that same companion, with obstinate perseverance in setting his gun-hammers down on the caps and then allowing the gun to rattle about in the bottom of the dugout, shot a hole through the bow below the water-line. We crept back into the stern, thus lifting the bow out of the water, and in that way paddled ashore. The canoe was patched up and a few weeks later came near drowning us under a raft. Then a half-breed cast a covetous eye upon it and paddled it away. It came back through some vigorous persuasion, and was duly chained to the plum-tree. After that it seemed to resign itself to service and ran on for several years without incident or accident.

Canoeing in those days was hardly the canvas canoeing of the present time. There were no seats in the dugout. The paddler sat flat down

on the bottom to keep out of sight of game and out of the wind. He paddled with a thin but broad-bladed paddle and a long handle. If sneaking on game, he never lifted the paddle out of the water. He brought it forward through the water, edge first, so that it cut without rippling. The back-stroke was made with a flirt out at the side of the broad blade which kept the canoe headed straight. When not sneaking or moving carefully on game the paddle was often shifted from one side of the canoe to the other, especially if there were heavy winds—the blade being feathered as it came up into the wind.

In going through shallow narrow sloughs the paddle was used to push on the ground, and much fine still-hunting was done in that way. Off from the sloughs (the creeks of the so-called river-bottoms) were small pockets or little bayous, dense with tall stalks of wild rice, in which ducks would gather by the scores. Sometimes we could push the canoe within ten yards of them before we were either seen or heard. Then they took to wing with a great splash and beat, and we shot at them as they rose. Often, again, we were able to steal on beaver or mink with a noiseless paddle, even in full daylight, by keeping in the shadow of heavy

mud-banks; and at night, when spearing fish by torchlight, we could drive the dugout almost within touching distance of a dazzled fawn before it would jump.

The chief use of the canoe was in hunting ducks and geese. In the early afternoon, almost to the sunset hour, we slipped along the sloughs shooting wood-duck, teal, and mallards as they rose from the pockets. The dog, lying flat in the bottom of the canoe, would whimper and shiver with excitement over this, and occasionally would plunge overboard after a broken-winged duck, and take his beating afterward with becoming complacency. There were mitigating circumstances in his case. The game was close to view, and when it rose there was such a startling whiff of wings and splash of water that we were not less excited than the dog. It was the golden period of waterfowl shooting in America, and we were in the midst of it.

Before sundown we left the sloughs and took up position on the edge of some huge wild-rice lake where the ducks and geese came in on their evening flight. The procession began arriving sometimes an hour before sunset and lasted until after dark. We shot until we could no longer see

the flocks outlined against the night sky. And still they came, rank after rank, flock after flock, whirling, beating, gliding, settling into the centre of the lake.

The early-comers were the wood-duck, flying rather low, and in flocks of a dozen or more. They were bred in the Mississippi bottoms, and the young ones were moving about in flocks before the first of September, feeding in the pockets of the sloughs in the daytime, and dropping into the big lakes for protection at night. They flew quite rapidly and just a little carelessly. They seemed more wary when younger and with unfeathered wings they dove in the water or hid in the long grass; but when they began to fly they thought themselves quite immune from danger. The result was that the hawks often caught them. Ducks have a foolish way of circling a lake again and again, looking for a right spot to alight. The wood-duck has this habit more than any other. The hawks took advantage of that movement, and often dashed into a flock at a tangent of the circle. More than once have I seen a hawk seize a duck in mid-air, at a turning of the flock, and bear his victim away with the greatest ease and deliberation. And the wheeling process also

brought the ducks within the range of the guns. There would be a puff of smoke, a report, and a leader would perhaps let go his hold on the air and collapse in a crumpled heap on the surface of the lake, where the dog would find him. The wood-duck were the most foolish of the flight.

Below the wood-duck, often just over the plumes of the wild rice, came the blue-and-green-winged teal. They came close but they came like bullets, and it required quick snap-shooting to stop them. We could often see their very eyeballs, so close they were, and then miss them completely. While reloading (those were the days of the muzzle-loader), a new flock would show us new eyeballs and also their disappearing gray backs before we could get caps on our guns. The teal were always swift fliers, with the ability to change both their mind and their direction in a flash of time, wheeling and swinging up into the air, or round a point of land, or into a pocket with the greatest grace and dexterity.

For dash the green-winged teal always seemed to me a kind of enlarged humming-bird among the duck family. All sportsmen love their alertness and sense of life—so much so, that I have met those who would not shoot them. Once,

seated on the bank of a slough, a small bunch of five came whizzing by me just a foot or so above the water. They had gotten a little past me and were bunched together when I shot. Much to my surprise, all five of them dropped into the water with the one shot. Of course that, for a boy, was a wonderful feat, but I could not help feeling a pang of remorse over it. I had wiped out a whole little family in a murderous fashion. And they were so beautiful, so happy! But with every boy there is a reversion to the savage. He gets a sling, a bow and arrow, a gun, and begins to kill things. Not until later life does he give the gun away and resolve himself human.

Above the wood-duck and teal came the mallards. They came at the beginning of the migratory season, making long pauses in the wild-rice lakes, and drifting south slowly. The flocks were large, and on the evening flights they flew in and over the lakes about twenty or thirty yards up in the air. You could see the green heads and necks of the drakes plainly enough. Their winging was heavy though swift—the birds themselves being too large to do any such quick turning as the teal or wood-duck. Usually the leader

was quacking and leading his fellows right up to destruction. When shot at, they beat the air, rising straight into the sky, exposing their rumps to a second shot, and usually with fatal result. They were hard birds to knock down if you shot at them as they came head on, breast on. The trick was to let them pass, then turn and shoot them in the back, where the casing was not covered with heavy flesh as on the front. Then they collapsed and gave the dogs no trouble in retrieving them.

Splendid birds, the mallards! Fed on wild rice, they were (like the teal) so fat that often when shot they would strike the water and burst open on their breasts. And in those early days their numbers were countless. I once saw several thousand in a drove, feeding upon acorns in the oak openings. An Indian companion and myself sneaked upon them over rolling ridges until we were within twenty yards of them. Then an old drake gave a loud danger quack. All the heads came up instantly and at that moment my companion fired. It was a cheap, single-barrelled, pot-metal gun, but that one shot killed eighteen mallards.

Still higher in the air than the mallards flew

the spoonbills, widgeons, and pintails. They were faster fliers than the others and not often shot. They seldom made circles around the lakes, though they would follow the linked waterways like the mallards. Even higher than these were the brant—birds that fancied open water and were rarely led into a rice lake unless it happened to be a very large one. The ingenuity they displayed in keeping themselves out of the game-bag was remarkable. They were very cautious about crossing necks and points of land and would shy at anything resembling a blind. It was seldom that we got a chance at them. The last one I shot was a lone male. He was going fast, but when struck began turning somersaults in the air, and ended his career by falling through a tree, catching his head in the crotch of a branch, and snapping his head off.

The geese rode the blue even higher than the brant. Toward dusk, when looking for a camping-place, they dropped down lower in the air, and on the evening flight we occasionally got one by a long shot. Usually, however, they kept aloft, came over a lake far up, and then, if disposed to take the water, they wound down a spiral staircase of the sky directly over the centre of

the lake. They were much too shrewd to come in low down over the edge of the lake, making a long slide for water, and giving every gun along the slide a chance at them. On the wing they were almost always clamoring, and they seemed to know that gave notice of their approach. At any rate, they made up for it by great wariness in flight. Usually they were seen in the spring and autumn migrations high up against the blue, flying in a wedge formation. They were not often shot on these migratory flights, but rather when coming and going from their feeding-grounds. In the early days on the Mississippi they raided the corn-fields, and shooting from behind or from within a corn-shock was the usual programme. Before the white man came, the Indians hunted them in the oak openings where they went for acorns, or the prairie pools where they dropped down for wild rice.

We seldom got more than a distant glimpse of the swans, and, though we could hear the guttural cries of sand-hill cranes somewhere up against the blue, it was still more seldom that we were able to make them out with our eyes. Occasionally a lone specimen would drift our way and get into the day's score, but it was mere ac-

cident. We shot ducks and were content. When the light died out and we could no longer see to shoot, and the water and rice were so dark that the dogs could not retrieve, we came together, got our wet selves and the wetter dogs into the canoe, and started home. Often the nights were very chilly and, seated in the canoe, we heaped dead ducks about us to keep us warm. The going home was tiresome enough without the added discomfort of wet, cold clothes.

Frequently we were eight or ten miles away and had to trace our course out to the river through the narrow, winding sloughs in the darkness. There came in our skill of eye and hand upon which we prided ourselves. The one at the stern who held the controlling paddle was responsible for the run. Could he take the canoe out to the river without hitting a snag or scraping a fallen log or grounding anywhere along the route? Could he see in the dark and be sure of every stick and stone and log that stuck up out of water and menaced him? It was really astonishing what runs we came to perform, what skill we developed. We thought at the time that no Sioux could handle the paddle more cunningly.

CHAPTER IX

THE RIVER

It was always more or less romantic and even awesome, that paddling through the sloughs by night, under the shadow of enormous elms, with occasionally a flash of stars on the dark water where the trees opened for a moment to the sky. And always the mystery of things half-seen! Forms and shadows and lights were somewhat confused and a course was laid more by instinct than by sight.

There was also the mystery of things merely heard. A tremendous thrashing of the water just a few feet ahead of the canoe. What was it —an enormous muskallonge, a frightened beaver, or a huge bottom snake? Then a smash and plunge in the water, a series of plunges, a jump up the bank, and a succession of bumps through the bottom timber, growing gradually fainter. Was it a deer or a bear or a wild hog? We were gifted with lively imaginations in those days, but also some lively things really happened. One day while hunting woodcock I stepped on the

fallen trunk of a small sapling, and the trunk moved with me so suddenly that I nearly fell to the ground. It was a snake.

At last we came out to the wide, swiftly-flowing river—a dark river, even under moonlight, and almost black under clouds. But it was a noble river—nobler then than now. And much larger. The great forests of Minnesota and Wisconsin were even then being hit by the axe, but the impression at first was slight. The heavy snows of winter fell and sifted through the pine sprays and lodged in the forest depths and were conserved there until far along in the spring. Then they melted away gradually, with the result that a stage of high water was maintained in the Mississippi by the feeding streams until far into the summer. Now the forests have gone and the first few days of spring with a warm sun melt the snows quickly and start a freshet. The tributary streams soon carry into the river and create a great flood that goes down the Mississippi Valley with destruction in its wake. Then there follows a long summer subsidence, with the river at its lowest stage.

It was upon this broad river of the early days that we at last emerged with the canoe and set

the prow for the opposite shore. How the waters seemed to hurry—more so at night than at any other time! And how the current kept carrying the canoe down with it! It was always a struggle with the swift water, always necessary to give a back spin with the paddle, to keep the bow rightly pointed. How well we knew that current, not only from crossing it in a canoe, but from swimming in it—swimming the river itself! Always the fast-running waters were tugging at our arms and legs, trying to turn us over and roll us under. And in or out of a canoe how quickly the swift waters took advantage of an accident! How remorselessly they dragged under and drowned the one that had blundered! And yet how soft, how gentle, the touch as one trailed his hand in the water from the side of the canoe! It seemed incapable of harm. Diving into it one could slip through its depths like a seal, and opening one's eyes down there revealed the most lovely tone of green. But it was never to be trusted. Even the still depths had their eddies and undertows.

Its greatest menace was in the warm days of spring when all the tributaries flowed full and fast, and the river-basin, several miles in width,

was inundated with coffee-colored water. The banks were overflowed, the whilom sloughs and waterways through the bottoms disappeared, and the canoe ran free from bluff to bluff. Logs, timber, uprooted trees, driftwood, grass, leaves—all the flotsam and jetsam of the river-valley, including an occasional boat or house or haystack of humanity—went hurrying downward with the flood. The canoe picked its way through a wild confusion of drifting objects. And the water surface itself was madly surging. Everywhere the surface was broken by geyser-like boilings upward from below, that lifted and fell and spread in great circles. And occasionally there were whirling, suction or pressure eddies that swung the bow of the canoe around in spite of a strong hand at the paddle.

What might there was in the great river in that flood-time! The bear or deer, caught on a neck of land by the rising water and compelled to swim for shore, had a desperate time of it; and the human being unfortunate enough to fall or be pushed from a steamer's deck in the night, if he ever dragged himself up the far bank alive, never forgot to his dying day the pull and roll of that racing river. The water ate into and car-

ried away banks and obliterated sand-bars and islands; the river-channel was lost and the three-decker steamers ran where they pleased; the small towns in the valley were water-surrounded and seemed to hold fast by the slenderest of foundations; and the tall towers and turrets of the bordering bluffs, with the waves breaking at their feet, looked down on the giant elms in the bottom-lands trembling with the tug of the water. It was a wild river then.

But through it all ran the dugout canoe with ease and safety, though with an occasional shiver as a wave hit it or an eddy twisted it. Perhaps it was not the best craft for an open, swift-running river. Paddling against the current was hard work. One could not get pressure enough on the blade for continued headway, the wind was bothersome, and the high waves would frequently dash over the sides, especially if we were heavily loaded. So we took up with another kind of craft for use on the open river. That was the skiff. We made it easily enough out of a single bottom-board, bevelled on the edges, three weather-boards lapped one over another on each side, knees to hold the weather-boards firm, clinch-posts at bow and stern to which were

nailed the ends of the weather-boards, cutwaters duly tinned and made water-tight with white lead, and a coat or two of paint over all. This light craft we were able to equip with swivel oars, and they made a vast difference in the speed, headway, and general ease of getting about in open water. We used the skiff a great deal for long-distance trips, but it never was so effective as the dugout for hunting, sneaking, or slough-running.

There were other small craft used by the lumbermen and the rivermen, but we rather scorned them because of their size, their wooden row-locks with their noise, and their general unsuitableness for hunting; but they were, nevertheless, very serviceable boats. A great deal of activity was displayed just then on the river. The only entrance to the upper country in those days was by water. The full river floated three-decker, flat-bottomed steamers that came from St. Louis and ran up as far as St. Paul. The beating of their paddle-wheels and the sigh of their exhaust through the tall smoke-stacks were sounds that carried far on still days; and the low, deep tones of their whistles, as they blew for some landing, were turned into something half musical by com-

ing across the water. The few people who then lived in the river-valley could tell by the sound of the whistle just what steamer was coming in.

Each white-and-blue messenger, perched high out of water, with covered decks, scrollwork pilot-house, gilded ornaments, and flying flags, came and went unannounced save by its whistle. As it neared the beach-landing a brass band of some strength and little skill struck up a popular air, a gang-plank was pushed ashore, a few people, the mails, some freight and live stock, were hustled off. Then came the tinkle of two bells from the engine-room, a churn of waters from the paddles, a backing out into the stream, and presently the "Northern Belle," the "War Eagle," or the "Dubuque" was again throbbing and beating on its way. The little village, its one excitement passed, returned to slumber; and the stillness of the wide valley came back as the sound of the paddle-wheels died out in the distance.

Another kind of craft began navigating the river in that early time. The great forests of Wisconsin lying about the headwaters of the Chippewa River had been discovered and slashed into by the axe. Sawmills were put up that whipped the tall pines into lumber, which was

swiftly locked together in "cribs," floated down the Chippewa in "strings," and put together in the Mississippi in enormous lumber-rafts. When twenty or more strings of lumber were coupled up abreast with a long oar-sweep fore and aft of each string, and forty or fifty men were recruited as a crew, then the acres of floating lumber would be swung out into the channel and started for St. Louis or some other Southern destination.

As boys we were much interested in the rafts. We fished and swam from them, occasionally took the river trip to St. Louis on them, and were more or less attracted by the crews that manned them. For the raft crew, part-Indian, part-white, made a rather picturesque and romantic showing. The dress was striking—a red or blue flannel shirt, a black slouch hat, black trousers, driving-boots to the knee with iron calked soles and heels. The wearers were mustached and insolent-looking, sometimes carried bowie-knives but usually no firearms, and generally did their fighting with their fists and boots. It was a more or less devil-may-care, disreputable crew, but had the small virtue of good nature. With its long oar-sweeps the crew kept the raft pointed the right way and in the channel. That was about its only work, and in that it was not always successful.

In stages of high water the swift current sometimes swung an end of the raft against a bank, thereby rubbing off a dozen or more cribs of lumber, or perhaps caused the whole raft to saddleback a sand-bar or small island, in which event cribs and strings often piled up in layers like ice-floes driven against a bridge-pier. At such times, under the inspiration of much cursing from the pilot, the red shirts grew energetic. Ropes were quickly run out, the lost strings were lassoed, and the pull of the main raft in the channel dragged off the stranded members. Under the strain the three-inch hawsers on the "snubbing-works" smoked and flamed with friction, and the air above the crew was festooned with profanity.

Ordinarily, however, there was little sound or bustle coming from the lumber-raft. It drifted lazily on, moving a trifle faster than the current by virtue of its weight and headway; and the crew slept or played at cards between intervals of handling the oars or gathering for meals in the small board shanty erected in the middle of the raft. So silently the great acres of lumber moved with the current that oftentimes an Indian, fishing from a canoe anchored in the middle of the stream, would be almost ridden under before aware that a raft was near him. The raft

drifted on from dawn to dusk and then the great hawsers were run out and made fast to some huge tree on the bank and the raft was gradually "snubbed" up until it came to a standstill alongshore. Night-running with large rafts was not the usual custom, except under moonlight. The steamers ran day and night, and tradition had it that the pilots did their best work on the stormiest and darkest nights; but the steamers were easier managed than a lumber-raft.

It was many days before the raft was "snubbed" for the last time at St. Louis, or some other railway city. It was there dismantled and dispersed to lumber-yards, and sent east or south by freight-trains. The crew had nothing to do with this latter work. When the raft was finally tied up, their job was finished. Their next move was to get their money from the company, and then get rid of it forthwith in the river-front saloons. Whiskey, and its usual concomitants, generally used up the crew's wages within twenty-four hours. Then the sobered and surly were ready to go up the river again as deck passengers on one of the three-decker steamers. They slept on the lower deck, under the boilers, around the wood-piles, or among the boxes of freight.

After recovery from the debauch, they played cards, played practical jokes, and indulged in fighting. The steamboat's mate (always chosen in those days for his ability to stop a row by knocking people down) was the cause of animosities. He swore too much. And at them. He was a bully and any one of them could "lick" him. Some of them tried and generally came off second best. But occasionally the bully fared badly. On one trip up the river the mate of the "Dubuque" tried to beat up a raftsman, but the raftsman's partner hit him from behind with a stick of cord-wood and he fell forward on the deck with a crushed skull. The partners went ashore at the next stop of the steamboat, disappeared into the back country, and nothing further was heard of the matter.

There were ugly stories told about the steamboat life in those days. The river was the natural runway of all the disreputable characters in the country. When a sheriff got after an outlaw, the outlaw could cross from one State to another by the river quite readily. The water left no trail and threw officers off the scent. Besides these desperadoes there were all sorts of gamblers, cutthroats, and thugs to be found on the steamboats

as employees or habitués. A shooting or a robbery was not infrequent. People would often disappear, and, perhaps weeks afterward, a body would be brought up from the bottom of the river by the churn of passing paddle-wheels, and a white face would be seen on the waves of the wake. The pilots, from their high position on the hurricane-deck, would see these white faces occasionally and shudder with a superstitious dread. One man—a strong swimmer whom I had heard boast more than once that there was not enough water in the river to drown him—disappeared one night from a steamboat, and his body was found washed ashore on a river-island ten days later. His watch and money were with him and there were no bruises on the body. No one could guess what had happened to him. The swift water, that had rolled him and strangled him, said naught.

One summer, during school vacation, I took the job of night-clerk on one of the river steamers, and it was thus that I heard not only many strange stories but came in as a witness to some strange happenings. At the start I was brought into contact with the raft crews and began to experience difficulties. One day while standing in the

pilot-house, with the captain at the wheel (the pilot was below at dinner), word was brought that a drunken raftsman was trying to break in a barrel of whiskey which we were carrying as freight on the forecastle-deck. The captain told me to go down and stop him. It was on my tongue to say to him that that was the mate's business; but, not wishing to disobey orders, I thought I would go down and reason with the man.

I found my drunken raftsman with a ten-foot fire-poker (which he had got from under the boilers) in his hands, trying to stave-in the barrel-head. I called to him to stop. He paused, holding the poker in mid-air, and looked at me with the utmost contempt, for I was merely a thin, whey-faced boy. Then with a sudden blaze in his eyes he told me that if I did not get out of there he would run the poker through me. I was a new clerk, it was my summer's job to deal with the men of his class, and I realized instantly that I had to fight then or be trampled on forever after. Instantly I whipped out a small pearl-handled revolver and brought it to bear straight between his eyes. It was my turn to order that he drop that poker or I would shoot. The poker very slowly came down until its point

rested on the deck. The man paused, laughed a counterfeited laugh, and then made some remark about his guessing that I would not shoot. He turned aside to talk to a companion and passed it off that way, but I took charge of the barrel.

While I was examining the poker dents in the barrel several other raftsmen came up. They wanted to know if I would have shot had the drunken one not given up. I insisted that I would. But in the midst of my boastings I began to feel very faint and felt sure that I was growing ghastly white in the face. I made an excuse to go back in the engine-room, where I was very glad to sit down on the engineer's chest and catch my breath and strength. I was near a collapse. But I had bluffed it through successfully, and all that summer I had the reputation among the raftsmen of being a young devil, a perfect fire-eater, and not to be trifled with. Reputation is sometimes very easily acquired.

But there were vastly more of the amusing than the serious incidents happening from day to day. I can repeat only one. The steamer was coming to a beach-landing at Wabasha. The heavy gang-plank or bridge had been pushed out

over the deck edge ten or twelve feet preparatory to launching. At this juncture, and while the boat was twenty or thirty feet from shore, a middle-aged character came rushing down the companion-way from the upper deck. He was a curious-looking person in dress (he might have passed for a poor counterfeit of Uncle Sam), and held an old-fashioned carpet-sack in one hand and a cotton umbrella in the other. He rushed out on the end of the gang-plank, evidently thinking the boat was going out instead of coming in, and that he would be carried by his destination. One of the raftsmen quickly grasped the situation and called out behind his back:

"Jump! she's going out!"

The man jumped and struck in the water up to his armpits. He waded ashore, still holding to his belongings, amid the roars and howls of the deck-hands and raftsmen. He then turned around and slowly began to realize that the boat was just landing and that he had been made the butt of a joke. He stood there a picture of severity until the laughter had measurably died out. Then, shaking his wet umbrella violently at the boat's crew, he shouted:

"I can lick the whelp that said 'jump.'"

The new howl of laughter that went up was tremendous.

Fun that had at bottom some one's discomfiture was greatly enjoyed in the early West. The boat and raft crews were always tickled by the ridiculous, and the practical joke was ever being sprung on the lower deck. It frequently ended in fights wherein each party tried to throw or knock his opponent overboard, but then, even if successful, a roustabout more or less counted for little. The smoke-stacks sighed, the paddle-wheels beat on, and the steamboat crawled and crept slowly up the twisting channel.

In stages of low water there were frequent groundings on sand-bars, and then the roustabouts went overboard by the mate's orders, went out in the water ahead with a huge sharp-pointed pole and a rope. From this pole, anchored in the sand, the steamboat pulled herself over the bar by winding in the rope on her windlass. The work of holding down the pole was left to the green hands, and out of it grew many jokes—some of them a little feeble.

When the mouth of the Chippewa was reached the raft's crew disembarked, and some of them perhaps reshipped on smaller steamboats, like

the "Pete Wilson" or the "Minnietta," and went up to Eau Claire. The process of raft-making and river-running was repeated all summer long with slight variations. The rafting on the Chippewa was perhaps a little more exciting at times than on the Mississippi, because the stream was smaller and swifter and the strings of lumber saddle-backed bars and islands oftener.

We liked the Chippewa better in the winter-time when the river was frozen and heavy snow lay upon it. Then with our feet in Norwegian snow-shoes (they are called "skis" to-day) and a rifle at our back we went up the river to hunt deer in the big woods. But that is a story that may be reached farther on.

CHAPTER X

TROLLING AND SPEARING

The rafts, the sand-bars, the rapids, and the deep holes of the Mississippi were all intimately connected with fish and fishing. The river was alive in those early days and any one could catch fish. The lazy way of catching them was to sit on a raft, with two or three lines out, each one anchored to a grub-pin on the raft, and when a fish was hooked to pull in on the line. The only bait used was live minnows. There was no limit to the size of the bait or the hook. Nothing seemed too large. As for the fish, they ran from one to ten or more pounds in weight.

Rod-and-reel fishing was almost unknown and never practised to any extent in raft-fishing. Playing a fish was a fine art we had not then acquired. The only thing worth while was the string of fish. So we hastily pulled them in, strung them through the gills, and watched the string grow. Of course there were days when the catch was slim, when nothing would bite, and whistling did no good; but there were other days when the

scaly spoil was staggering in weight. Everything under a pound was tossed back into the stream, unless it was a catfish, a sheepshead, or a sturgeon. The catfish was thrown out on the raft to see how long he could live without water, the sheepshead was brained for the lucky stones in his head, the sturgeon had a shingle tied to his tail and was then turned loose in the stream to be mocked of his kind and eventually to die head downward.

It was brutal business. Boys always have a more or less brutal strain in them, but I am glad to remember that this particular form of cruelty never appealed strongly to me. The young Indians delighted in torturing everything. On a hunting trip with them one summer I recall that one day the squaws caught a number of turtles. They were put alive in a pot of water and the pot hung over a camp-fire. When the water grew hot the turtles began to scramble about. That seemed intensely amusing to the whole camp and I was laughed at because I did not like it.

The smallest of the Mississippi fish that got on the string was the sand-pike. He weighed only a pound or more, was very edible, and decidedly gamey. He came out of the water with dorsal fins sharply set and had to be handled with

care. There were thousands of them slipping along the sandy floors of the river, and they not only bit voraciously at anything, but were bitten at by all the larger fish in the river. Sometimes a sand-pike, swallowing a minnow half as large as himself, and being pulled in on a line, would be attacked by a larger fish. The latter would set teeth into the sand-pike so firmly that both would find themselves on the raft before they knew it. The sand-pike seemed a much-sought-after food-fish, and when we constructed artificial minnows for spearing through the ice our model was the sand-pike. The larger pike—known as the wall-eyed pike—found in abundance in the Mississippi in the early days, was evidently an older brother, or at least a close relation of the sand-pike. Neither of them was, strictly speaking, a pike, but rather a pike-perch having two dorsal fins, where the true pike has only one. Names were confused in those days and are still. The true pike of the East is the pickerel of the West.

The wall-eyed pike grew to a large size in the river, and occasionally one that weighed twenty pounds would be pulled out. They were a beautiful golden color on the sides, of substantial build,

great swiftness, and unparalleled voracity. They bit at everything and swallowed even their own progeny, after the cannibal-fashion of fish. After being hooked they made no great fight, but accepted the situation calmly. They were always, with the sand-pike, considered as the best of the river fishes for food, having something of the fine flavor of the ordinary perch. Quantities of them found their way to our strings.

A much rarer fish was the black bass—at least he was rarely caught on a set line, but could be tempted by trolling with a "spoon-hook" if you went to the swift eddies in which he delighted to swing and sway. Occasionally a white bass, travelling in schools, would be caught in numbers for a day or two, and then disappear for the rest of the season. Of skipjacks, gars, eels, and other ill-favored fish, there were enough and to spare. Strange specimens were always prowling along the river-bottom. And any sort of bait at the end of a set line would attract them. Frequently an enormous mud catfish, weighing thirty or more pounds, would be lifted out. The whites scorned them, but the Indians lodged no complaint against them as material for the camp-pot.

Raft-fishing with a set line was always a little

dull, and when we craved more excitement we went out along the still sloughs with a long bamboo pole (not rod) and a trolling spoon, or what was called in Minnesota a "spoon-hook," in quest of pickerel. The pickerel was to be found in still waters, lying under lily-pads or great bunches of slough-grass, and the bright flash of a passing spoon-hook put him into action instantly. He came out from cover with the swiftness and accuracy of an arrow, and crunched into the tin spoon like a nail-biter. When disillusioned by the hook in his jaw, he turned with a quick flirt of his powerful tail and you were immediately made aware that you had something more agile than a sheepshead at the end of your line. He shot back into ambush, wound up your line in the grass and lily-pads, or jumped from the surface shaking his jaws to disengage the hook. And he got away quite often by these tactics. When landed, he usually turned out to be long, slim, with an undershot jaw and a far back dorsal fin—an Eastern pike but with Western ferocity. His weight was usually about four or five pounds, his color was dark olive-green on the back and yellow-spotted on the sides, his flesh yellow and not very appetizing. But he was a fairly good fighter.

Not so good a fighter, however, as the black bass or the muskallonge. When we set out for real fishing it was with the canoe or the skiff, and we trolled the eddies and sharp points of the islands for black bass. This was done with a rod and a small spoon-hook, and the favorable spots were whipped from the end of the canoe, just as one would cast for trout in a lake. That was fine sport, because the black bass was then the very gamiest of the river fish. The way he swished the line and cut the water, dodged under sunken trees, or circled the canoe was thrilling, exciting, sometimes quite exasperating, when, owing to our stupidity and lack of skill, he outgeneralled us and got away. When we got him in the canoe his dark olive-green color did not make us exclaim over his beauty, but his strength and swiftness always commanded respect.

The muskallonge was quite another affair. We caught him by trolling with a very long line let out behind the canoe or skiff, and he, like the pickerel, rose to the glittering spoon-hook. We found him in deep water—usually in the dark depths around the foot of Lake Pepin. He was a large and rather heavy fish—not so lively as the pickerel—but what he lacked in agility he made

up in weight and pulling power. He would pull after the manner of a calf on a rope, and would often tow the canoe or skiff for long distances, if he happened to be large enough. In size they ran up to thirty or forty pounds, and the greater their weight the stronger they pulled, but the less lively they were in dash. When gaffed or netted or dragged over the side and flung into the bottom of the canoe, they were rather gross-looking, with a heavy under jaw and a flat, dull eye. In color they were an unattractive green-yellow with pale spots on the sides. The Indians ate them, as they did everything of fish, flesh, or fowl; but the whites were through with them when they got the spoon-hook free.

None of the line-fishing, with rod or spoon-hook or bait, was for a moment comparable to another kind of fishing that came with the spring of the year and lasted through the summer. I mean spearing from a boat at night by jack-light. It is now forbidden by law, but in the times of which I am writing nothing was forbidden, and every one was a law unto himself. Spearing by jack-light was made possible by the habit common to game-fish of lying at night in shallow water near the shore. Why they go there I am not able

to say—perhaps to escape for a time from the density of the deep pools.

A flat-bottomed boat, with an iron jack, plenty of light pine-knots, and a long-handled spear made up the equipment. After dark on still nights the boat could be pushed along the shore, ten feet or more from the water's edge, without making the slightest noise. The pine-knots burning up brightly would illumine the water so that the smallest object on the bottom could be seen. Large fish were made out instantly, for they were usually lying, not under pads or grass, but in the open water—water not more than a foot or two in depth—and when the jack-light came over them the effect was not at first to frighten but rather to daze them. For a few moments they would not stir unless there was some ripple from the paddle or grate of the boat on the bottom.

But it was only for a very few moments that the larger and more wary fish would stand the glare of the light. Then they would make a rush for deep water. It was the business of the man with the spear to strike before the fish started, or catch him with a swift-flung spear as he rushed out. There were a great many strange hits and many stranger misses. A running fish is not easy

to hit with a spear. And sometimes when hit he could give plenty of trouble. If the spear drove into the head or neck or shoulders near the backbone the shock was paralyzing, and the struggle was slight; but if the aim was not true and the running fish was hit near the tail, the spear might hold him but there would be a struggle.

The larger the fish the fiercer the struggle, and in the sloughs and bayous of the Mississippi there were miniature leviathans in those days. Many a time in my experience the spear was almost wrenched out of my hand, and one night I jumped out of the boat into the water to hold a huge muskallonge that had been hit far back on the body but was still held by the barb of the spear. The preliminary struggle in the boat had upset the jack, and the rest of the scene took place in the dark. The fish got away, and, of course, like all those that escaped, he was a monster.

The water seemed full of monsters under a bright jack-light. The gar-fish were the most uncanny of all, and perhaps the catfish were the largest, though occasionally a sturgeon challenged for weight. Pickerel were the most plentiful, pike were not frequently seen, and bass were not seen at all. The smaller fry of things living, creeping,

and swimming was made up of eels, crabs, snakes, turtles, frogs, and their kind. Taken as a whole, the slough's bottom offered a strange tableau, not unlike the sea world as seen through a glass-bottomed boat. Everything was just a little weird. The perspective with the lights and shades got out of focus, and often the water acted as a lens to magnify or distort or create false appearances. The man with the spear, after gazing at the illuminated bottom for a time, had difficulty in realizing the shore-line or the night sky. The jack-light dazzled and twisted every eye that looked at it or tried to see by it.

And the number of eyes that watched that slowly moving light in the boat was extraordinary. It is generally supposed that the deer is the only game that pauses to look at a fire flame, but all animals within the circuit watch it. I have seen pheasants on the bank, ducks on the water, frogs and muskrats in the pools, and coons on the trees, all following in a dazed way the movements of the light. Even the pointer dog at the bottom of the boat (we always took a dog with us on every excursion) grew quite wild under the artificial conditions, and had to be speared several times in the course of the evening to keep him quiet.

The dog particularly objected to fish being flung in the boat beside him, where they thrashed about with irresponsible inconsequence. He cautiously got up and smelled over each new arrival, but showed no disposition to take hold of them, even when invited to do so. Dogs do not dislike the taste of fish as they do that of toads and snakes; but they will not set teeth into them unless forced to do so. A boat-load of wet fish is never very attractive, even to the man with the spear, and we often had a great many fish after an evening's spearing. The ease with which they could be taken with a spear finally led to the abolition of the practice through State statutes. It was akin to shooting deer by jack-light, and was tolerable only in the days when fish were swarming in every stream in the land.

Spearing by torchlight was a summer sport, but the winter brought in something quite as exciting in the spearing through the ice. This was a method of attack handed down from the Indians, or at least I first learned about it from a half-breed. The first thing in the course of preparation was to cut a hole in the ice about three feet in diameter. The ice on the upper river and its side-sloughs was usually about three feet in thick-

ness. When that was out of the way and the small ice skimmed off the surface, the sunlight was shining in the hole with a gleam to scare every fish for fifty yards around. All the ice was covered with about two feet of snow, and that made a muffled light to the fish underneath. The hole had to have a muffling to make it correspond to the light of the main ice-field if we did not want the fish to move off the premises. Tepee-poles about eight or ten feet high, set in niches in the ice around the hole, frozen in by pouring water in the niches, the tops brought together and strapped, was the next step. Then about the poles were wound two or three layers of blankets. That kept the sunlight out of the hole and created a condition of the water underneath akin in light to that under the main ice-sheet.

A wooden minnow—carved with a jack-knife, scarred by a hot iron into semblance of scales, eyed with glass pin-heads, finned with bright pieces of tin—was the lure. A tin tail was provided, which, by bending to right or left, steered the minnow about in circles. Under his belly the minnow was loaded with lead so that he would sink in the water, and on his back, over his shoulder, was placed a swivel and an attached line with

which the sinking was regulated. By manœuvring the line the minnow could be made to cut all sorts of attractive capers, and by its flashing tin fins and tail the fish were lured under the open hole. A short-handled spear, with a rope at the end of the handle which in turn was fastened to the tepee-poles, was the weapon of attack. The fisherman sat within the tepee on a small piece of board, with his legs around the hole. He held and played the minnow with his left hand and kept the spear in readiness in his right hand. He sat very still and made no motion until he struck.

Pickerel and muskallonge were the chief fish speared through the ice, though pike, and even an occasional catfish, would dash at the minnow. Sometimes they attacked the minnow with a great rush, closed on the wood and tin fins, then let go and drew away under the ice for ten or fifteen minutes. After that perhaps they would come slowly back, drifting through the hole, and eying the sportive minnow with narrow curiosity. That was the time to strike. If the striking was done quickly, and the aim at the back of the head true, the struggle would be over before it was begun. A fish could not stand a spear-thrust in the back of the head or high up on the

back-bone. But in spearing through the ice the fish could see your every movement and the moment you moved he moved also. He moved very swiftly, and the spear aimed at his head would sometimes catch him far back on the tail. Then trouble began, for if he were a large fish he thrashed and struggled in a violent manner. He would perhaps jerk the spear out of your numbed hand, or tear your tepee down about your ears. Such things happened more than once in my own experience; and every half-breed or white fisherman had a tale to tell of nearly being dragged into the hole by a muskallonge, as big as a whale, that finally got away.

The fish that did not get away, that were held by the spear and pushed under the blankets out on the ice and snow, went through a rather unique experience. If hit in the head or high up on the back-bone, they were killed, and that was the end of them; but if hit near the tail and not killed outright, they froze up before they died. The upper Mississippi region in those days was very cold in winter, and, with the thermometer ten or twenty degrees below zero in the daytime, it can be readily understood that a wet fish thrown out on the snow would freeze solidly in a very

few minutes. When the day's fishing was done the frozen fish were loaded on a small sled, like so many sticks of cord-wood, and sledded home. There they were all thrown into a large hogshead of fresh water and allowed to thaw out before being dressed. The unique experience was that the merely wounded among the fish, thawed out, came to life, and amused themselves by swimming about in the hogshead. That always caused a large surprise on the part of the uninitiated, presumably because of the failure to reckon with the fish as a cold-blooded animal that could stand freezing.

It seems that fish can stand being frozen better than being smothered. They must have air. In the very severe winters of the Northwest the still sloughs or inlets of the Mississippi would freeze several feet thick until under the ice would perhaps remain only a foot or two of water. Usually the mouth or entrance of the slough would be somewhat choked with sand or silt, and there the ice would freeze down to the bottom. Escape for the fish would thus be cut off. They would be caught in the pocket of the slough. I have heard the story told many times of holes, as long as a wagon body, being cut in these frozen sloughs, of the ice being taken out and the water allowed to

come up to the ice-surface, and of the rush of fish to the surface to get air. The stories ran that sometimes sleigh-loads of fish from these slough-holes were thrown out on the ice with nothing more romantic as a weapon than an ordinary pitchfork. I doubt not there is a modicum of truth underlying this exaggeration, but I was never a witness at any of the fishing with a pitch-fork.

CHAPTER XI

TROUT FISHING

The weight of the fish has always been the astonishing factor in the big-fish story; but it is not so vital in the sport itself. The fisherman off the Newfoundland Banks who pulls up and stows away codfish, as he might so many sides of bacon or hams, is not impressed with the sport of it, whereas the man with light tackle who plays to a finish a speckled trout weighing a pound may be quite beside himself with excitement and joy.

It is not the getting of the trout that counts so much as the manner of his getting. It has to be done according to well-established rules. You shall not catch him with bait any more than you shall net him or blow him with dynamite. He must be lured with a cast fly, skilfully hooked as he rises, and played with rod and reel to a legitimate finish. To be sure the fish eventually gets in the basket, as the bull in the ring falls to the sword; but there are rules for both the pool and the ring that must be observed.

I need not go into the subtleties of fly-casting

and little-river fishing. My cousin Henry* has rather pre-empted that field. Perhaps he has caught no more trout than I, but he has fished expertly, knows trout-fishing intimately, and writes about it charmingly. Nor need I discuss the merits of the various flies—wet and dry after their kind—coachmen, doctors, professors, hackles. I have usually found that when trout rise they will do so to almost any kind of a fly, and when they are indisposed—well, they are indisposed. Some of my most fortunate fishing has been done with flies of my own impromptu manufacture, made out of materials wrested from a grouse's wing and a horse's tail. Sometimes when one is a long way from the nearest border town necessity becomes the mother of invention. Stanley and his party in exploring Africa sat down on the bank of a stream and starved because no one in the expedition had the small ingenuity to make a hook and line and go after the fish. But Stanley was British and had the British faculty for muddling through.

My fishing along brooks and rivers has been sporadic, intermittent, inconsecutive, and done

* Doctor Henry van Dyke, of Princeton, author of *Fisherman's Luck*, *Little Rivers*, etc.

more for the beauty of the stream than the catch of fish. At first, like every boy, I fished with worms, flung my fish over my head into the meadow grass, stamped on them, and then wrestled with them to make them disgorge the hook. A little later I developed fisherly curiosity and experimented with grasshoppers, crickets, and June-bugs; but the fish-basket bulked largest on worms. When still later I came to casting a gray or brown hackle on the stream and allowing it to drift with the current over waterfalls and into pools, I knew a distinctly different sensation. That was real trout fishing. Yet it was not until much later that my dear friend, Frank Thomson,* taught me how to cast a fly, how to strike, how to play a fish. He was the most expert fisherman (and the best companion) I ever knew. I shall never look upon his like again, either as man or fisherman.

In early Minnesota days few people cared about catching anything so small as a trout and, indeed, there were not many to catch. There were good-looking streams in my end of the State, but no trout in them. Occasionally one would find a

*Frank Thomson, president of the Pennsylvania Railroad. He died in 1899.

brook, like West Indian Creek, alive with black-backed, speckled trout, but that stream was rather an exception. The Minnesota trout, when finally located, proved a very lively fish, and my memories of him are pleasant; but I doubt if he (or any other trout) ever quite came up to the Catskill or Adirondack trout. We grow sentimental about the Eastern fish, perhaps because we knew him in our boyhood; and misjudge the quality of the Western fish, perhaps because we met him for the first time in later years. But whatever the cause, I join the chorus in praise of the Eastern fish. To me he has always been the gamiest and loveliest of them all.

Time was, and only a short time ago at that, when all the streams of New York State held their quotas of trout. So late as 1876 I caught beautiful specimens from a small stream running down from the Palisades and emptying into the Hackensack River above Closter. That was within twenty miles of New York City. And I was not poaching upon a private preserve but catching native fish in their native waters. The next year in Ulster County, at Peekamose, where a fishing club had been established, I found rare fishing in the small brook-fed lake. A few young

trout had been put into the lake to help out the native numbers, and so favorable were the waters that in a short time the place swarmed with fish. A fly cast from a boat along the edge of open water would meet with instant response, and a commotion and pulling under of lily-pads from a tangled line would follow. What beautiful fish, twisting, flashing, jumping out of water! And what a beautiful lake set in a bowl of the mountains, where sound of foot or wheel never came, and where the tall pines on the mountainside swayed gently in a breeze that was not a wind. The club members were less than half a dozen, and Quincy Ward, the sculptor, was the most enthusiastic of the number. Perhaps, besides trout, he found there at Peekamose that repose in nature which art tries so hard to acquire and recreate. It was in the mountains, the smooth lake, the soundless pines, the falling sunlight. The fish were merely an excuse for being out in the open.

There are still many trout within fifty miles of New York, in streams and lakes that are controlled by clubs, and there is still some of the native stock running in the brooks of northern New Jersey and New York. In Pike County, Pennsylvania (once a famous place to locate newspaper

stories of bears and snakes), small trout are found in almost every stream, but the larger specimens have gone their way to the frying-pan, or refuse to rise to the fly. The last brook I fished in that region was a beautiful slip of water, but the fish were not at home.

Catching no trout, and discovering across the brook on a ledge of rock a large-sized rattlesnake, I amused myself by casting at him. Finally, by sheer accident, I hooked him in the tail and turned him over with a jerk. The hook broke out at that juncture and the much-surprised snake coiled up and rattled at empty space. He did not see me across the brook and had no idea whatever of giving warning. It is sometimes stated that the rattler is a very honorable snake and always tells you beforehand that he is going to strike. But the statement is incorrect. If surprised, he will strike at once without rattling. When he does rattle, it is merely a nervousness made manifest at the end of his tail. He rattles because he is rattled.

The streams of the Alleghanies were once famous for their fish, but they have been whipped to a finish in recent times. Twenty-five years ago I went to them more than once with Frank

Thomson, and he had knowledge of the best streams; but even then we never caught more than we could comfortably eat over the camp-fire. That eating over the camp-fire was not of fish rolled in cracker-dust and fried in a pan. On the contrary, they were dressed, seasoned, buttered, and rolled singly in oiled tissue-paper, rolled a second time in newspaper, the ends of the newspaper were twisted up, and the whole package soaked for a few moments in brook water. Then the wet package was pushed into the camp-fire and covered with hot ashes for half an hour. The result was a fish of unique flavor and tenderness.

Thomson knew cookery as he did everything under the sun; but his culinary skill was as nothing compared to his skill with the rod. He was a superb caster, and his wrist-work in striking a fish was the most masterful I have ever seen. There were certain pools, recesses, holes under rocks along the stream, where lone large fish would be found in back eddies. They would rise leisurely and warily to a fly, take hold gently, and then, after a faint little tug, let go just as gently. Almost any tyro could coax them up once. Sometimes I could induce them to rise a second time,

but I never could strike them. I would remember the places, and after an hour would bring Thomson around to try for them. He could not only get them to rise again, but often struck them so quickly that the fish were hooked and landed. That was like bringing down a wild-flying grouse after every one else had emptied his gun in vain. Indeed, the net result of some of our fishing in Pennsylvania streams would have been rather slim but for his fine handling of the rod. Weir Mitchell once told me that Thomson's skill with salmon on the Restigouche was even greater than with trout, but I never had the fortune to see him make a salmon kill.

Both Thomson and Mitchell had fished and shot in Scotland, and often talked enthusiastically about the difficulties of shooting driven grouse from butts, but I never heard them say much about the fishing. From which I rather inferred that they thought fishing in America was better sport. I never was able to meet with them over there, though I did some fishing through William Black's country in their time. Later, in the nineties, I was at Cluny Castle with the Carnegies, and tried at trout fishing in the streams and lochs of Inverness. It was, perhaps, more amusing

than thrilling, for the fish were neither very large nor very good fighters. The second day of my stay there several members of the house-party fished one of the large distant burns, and returned late with sixteen trout, which they thought a remarkable catch. The host quietly informed them that their string was small and that he and I would go to the stream the next day and show them how to catch trout. It was good-natured banter, in which I took no part.

But, sure enough, the next morning the station-wagon was at the door, James, the gillie, and the fishing-tackle were stowed in behind, and the host and myself were off. Arrived at the stream I was told we had only about three hours to fish, that I was to take James and go up-stream while the host went down-stream, and that we were to be back at the wagon by two o'clock. I acquiesced in everything except James, whom I protested I did not want. But James would fix my tackle, and tell me where the trout lay, and show me how to catch them, and—well, I could do nothing without James. But I continued to protest and asked to be relieved of the gillie's society. The good host, with James at his heels, finally disappeared down the glen, leaving me to

my fate. As soon as they were out of sight I surveyed the lay of the land, climbed over a three or four hundred-foot hill, and in half an hour stood near the headwaters of the stream.

I began fishing at once in the pools, eddies, and backwaters; but with no luck. It took me half an hour to discover that the fish were lying on the riffles instead of in the pools. Then I began catching them. I played none of them, but just threw them out on the grass and slipped them into the basket as fast as possible. I was fishing for score rather than for sport. I fished for a little less than two hours, then went over the high hill again; and when Mr. Carnegie came up I was seated in the wagon smoking a cigar as though I had been there for hours awaiting his arrival. He was delighted with his own luck and his face was wreathed in smiles. (I never knew him so happy as when fishing. It was his great joy.) He had caught sixteen—the same number that the house-party of the day before had caught. He had equalled all of them put together. He talked and smiled about it in a half-boyish way as we drove down the glen.

Suddenly he turned to me and asked if I had caught anything.

I said: "Yes."

"How many?"

"I don't know."

"Didn't you count them?"

"No."

"Where are they?"

"In the basket under the seat."

"Well, they must be got out."

A rubber blanket was stretched across our laps and he began taking the fish out of the basket. His eyes kept getting larger as the score mounted. I had sixty-nine.

As the count closed he looked at me with some severity.

"I thought you knew nothing about trout fishing?"

I protested that I had said nothing whatever on the subject; he had inferred that because I knew something about art, therefore I knew nothing about anything else; that, as a matter of fact, if the truth were well told, I had in my life probably caught more trout than any or all of the house-party put together.

The temptation to boast was too great for me. But I found out that evening that it was something of a mistake. The dear host did not enjoy

being beaten, and after that I took pains in fishing and golfing to make no startling scores. Yet he was generous-minded enough at other times and in other ways, even about fishing. He was pleased when, a few days later, I beat one of his Scotch guests in fishing on Loch Dhu. I was an American and he was proud of everything on this side of the water.

After that he and his dear friend, John Morley*—the kindliest, most companionable, and best-poised Englishman I ever knew—took me on a fishing excursion to one of the more distant lochs, where we fished from a boat. Morley kept getting a gentle rise from under a rock every time the boat came around that way. There were two fish under the rock, but he seemed unable to strike either of them. He was then on his way to Kingussie, going up to London, and finally had to give up fishing to take his train. After he had gone in the wagon to the station the host and I circled the loch once more. When we reached Morley's rock he asked me to try for the two fish. I was fishing with two leaders and by a great fluke I caught both of the trout on the

* Now Viscount Morley, but then plain John Morley, writer, and Secretary for Ireland.

first cast. Mr. Carnegie was so pleased that he telegraphed the result to Morley at once. It was another American triumph. He never missed a chance to put forth America. That was generous of him, considering that he was Scotch by birth and loved Scotland dearly up to his last hour.

At Skibo, in Sutherland, in later years, I fished somewhat with the Laird,* but he and his friends were more attractive than the fish. A talk with Haldane,† Fairbairn,‡ Yates Thompson, and the Laird was preferable to a wet boat and a flowing line. Fishing drooped. Tea on the moors, or sometimes at the Falls of the Shinn, where we could see the salmon jumping, with Mrs. Carnegie and the ladies of the house-party for company, was better than grouse-shooting. Perhaps we had all grown a little older and felt a little kindlier toward the birds and fishes. The wish to catch and kill does not persist forever. And humanity always regrets. Even some of the Biblical characters, after running a score with the gay world most of their lives, were said to regret pay-day.

* After Mr. Carnegie acquired Skibo he was known to every one in the North Country as the Laird of Skibo.

† Now Lord Haldane.

‡ Principal A. M. Fairbairn, of Mansfield College, Oxford.

I have in mind an old half-remembered rhyme to the effect that as they grew older they began to

"experience qualms,
So Solomon wrote the Proverbs and David wrote the Psalms."

The hunter and the fisherman arrive at a similar condition of conscience, and then perhaps write reminiscences of their slaughterings with pious regrets interlarded—*vide supra.*

Before and after Skibo I did some fishing in Norway, in Austria, in Switzerland; but it gave me no proper notion of Continental fish or fishing. And the European landscape was never wild enough for my taste. Fishing and hunting within the borders of civilization always seemed to me a bit incongruous. Even such a comparatively wild spot as the Yellowstone National Park had lost its native charm for me so far back as twenty-five years ago, because of the tramp of tourists and the dust of stages. At that time the trout in the lakes were almost too dull to rise to a fly. They came to the surface slowly like catfish, and when struck, the easiest way to land them was to put the rod over one's shoulder and tow them ashore. The smaller fish in the swift-running streams were far more gamey, and I remember

several mornings of rare sport playing fish in a huge eddy under a cut bank. But the glory of the Yellowstone departed with the coming of the tourist.

What is now the Glacier National Park has doubtless suffered in the same way, though I have not been there since it was nationalized and opened to the automobile and the owner thereof. In the early days there was excellent fishing in the streams of the eastern slope—Cut Bank, Swift Current, Red Eagle Creek. In fact, almost any stream gave forth trout in those days —trout that fought and feinted and leaped quite as lively as one could wish for. Just what trout family they belonged to I cannot now remember. At that time and in that Western country there were no fine distinctions, and trout were merely—trout. The Glacier Park fish were faintly spotted, with rather black backs, and were sometimes called "mountain-trout"—a general name—but they were not speckled or rainbowed or golden on the sides. The larger lake-trout were found in St. Mary's and in the other lakes of the park, but no one cared to disturb them except the Blackfeet Indians. A lake-trout caught with a spoon-hook from a boat, or a steelhead taken

with a spinner, is always a poor compromise for the brook-trout that rises to a fly.

To be sure, the steelhead weighing fifteen pounds and caught with a spinner while wading a river up to your waist is something of a fighter, and does not give up the ship without a struggle. I have caught them in the Fraser, the Columbia, the Rogue, and other rivers, and everywhere they have given good report of themselves; but they had not the fascination, and did not give the thrill, of the smaller fish so often played and landed from the swift waters of the Kicking Horse River or the brooks running into the Fraser. British Columbia twenty-five years ago was a fisherman's paradise. The salmon would not rise to a fly, but it was a sheer delight to see their endless numbers moving in procession, mounting the streams, jumping the falls. And the British Columbia trout rose swiftly at almost any sort of a fly, and when struck, cut the pool with the line, swished the foam under the waterfall, and jumped clear of the water, shaking at the hook with great cunning.

The rainbow-trout were at that time found in almost all of the streams of southern Washington, Oregon, and California. I cannot recall if they

were in the streams running down from Mount Rainier, but they were in abundance at the headwaters of the Coquille River in western Oregon not more than fifteen years ago. I caught them then on the Coquille, fished for them there for nearly two weeks, and marvelled much at their beauty. The rainbows seemed at home in that wilderness with the wild rose, the climbing clematis, and the tall Port Orford cedars throwing their shadows across the rushing river. Ah! what splendid canyoned water! And what wonderful fishing! I have caught the rainbows all along the Sierra, through California to the Mexican border, but those in the Coquille River were easily the finest of their family.

At the same time with the rainbow-trout in the Coquille the smaller creeks of Oregon, such as those tributary to the Rogue River, were tenanted by a smaller, black-backed, silver-bellied trout that rose to the fly more quickly and fought more tenaciously than the rainbow. He had many names, according to locality, but the usual designation was merely "brook-trout"—a native trout not unlike those in the Minnesota streams of my boyhood. The McCloud River, the Kaweah, King's River are now stocked with

rainbow, golden, Eastern, and Loch Leven trout, like almost all of the Sierra streams of California; but the fishing is not what it was twenty years ago. One could then stand in the waters of King's River Canyon and catch a dozen fish without changing his position. I remember coming upon an enclosed basin under a waterfall at one place in the river that I could not get down to. I let out a line from the rocks forty feet above. As soon as the fly struck the water it was seized, and I, rather tamely, reeled up the flapping, struggling fish. Three times I did this and then paused. I doubt not I could have taken fifty fish from that basin, but the manner of their taking was rather stupid and I stopped.

But that time has passed on forever. Only a memory of it remains. In Southern California the streams running down from Greyback, San Jacinto, and other high mountains of the Sierra were once full of mountain-trout—trout with a bright olive-green back, silver sides dotted with points of jet, and a dark stripe running lengthwise down the centre of each side. That was a very lively, gamey fish, but his voracity and the voracity of the tourist long ago proved his undoing. I caught a few of them about ten years ago from

a little stream running down the desert side of Greyback, and occasionally a rancher finds one in his irrigating ditch far down in the valley; but they have become a rarity, almost a curiosity. Some of the Southern California brooks have been stocked with rainbow or golden trout, but even these do not last long. The tourist whips them out about as rapidly as they are put in. The trout and the quail of California seem doomed to extinction.

Even the sea-fishes of the Pacific coast are beginning to stagger before the assaults of the sportsman and the marketman. The barracuda, the tuna, redfish, kelpfish, rock cod, Spanish mackerel—all sorts of fish, gamey and otherwise—are growing less. Farther down on the coast, in old Mexico—where, years ago, foot of tourist never came and the "sportsman" was unknown—there were great swarms of sea life, practically undisturbed save for the pelicans, gulls, and divers. The shallow sea-floor for miles around the mouth of the Yaki River was one vast oyster-bed, with oysters studded so thickly that there seemed no room for more. The Indians brought them into Guaymas and sold them for six cents a hundred—the very finest and largest oysters

in the world. As for fish, great and small, the sea trembled with them. Great schools of cabrilla, tortuaba, mackerel, ran everywhere, and droves of porpoises followed in their wake taking toll of them.

And sharks! I often walked along the cliffs beyond Guaymas watching the chase of the porpoises and the roll of the sharks with a strange wonder over the completeness of their equipment. They were so splendidly constructed for slaughter. Often in coming into the Bay of Guaymas in a small fishing-schooner the sharks would follow the schooner almost to the landing, and many were our devices for catching them; but our equipment for killing was very crude as compared with theirs.

Sea-fishing never has had the fisherman's lasting love and devotion—not even the fishing for tuna or tarpon. It is usually a contest for weight, in which mere force plays too great a part. Far more beguiling and inspiring the skilful casting of a small fly on the rushing waters of the mountain brook. And far more beautiful the tiny scrap of speckled or rainbow life than any monster of the shore or the depths! The brook-trout is the fisherman's delight.

May his tribe increase! But there is a chilly feeling that it will not, that his numbers are growing yearly less, and that with many another representative of American wild life he will eventually disappear from the scene.

CHAPTER XII

GAME-BIRDS

The hunting days of my boyhood are associated in memory with warm spring weather in Minnesota, blue skies, still air, light-green foliage, the hum of bees in the grass; and, coming down from the prairies stretching beyond the high bluffs of the Mississippi, the faint boom! booom! boooom! of mating prairie-chickens. No roar of trains nor whir of factories to break the stillness; no smoke or dust of cities to blur the blue! The long valley was a new land then, and the great river that ran through it was a clear and silent river moving down its wide valley in undisturbed volume toward its ocean home.

The bluffs—those rock-ribbed heights cut and left with abrupt face-walls by water-wear thousands of years ago—were the great lookouts upon the valley. From their tops, lying upon some Indian signal-rock, one could see many miles up and down the waterway—could see the river widening, narrowing, flashing, and disappearing in a haze of blue distance. The bluff walls with

their escarpments were broken through here and there by the valleys of tributary streams, and back from these *coulées* stretched the great prairies waving westward to the Rockies. The prairies led on to No Man's Land—the land of adventure and surprise, from which came back stories of buffalo and Indians, running fights and wild rides for life. It was all an enchanted land in the imagination of a boy.

But we made no long ride to come up with the prairie-chicken—the pinnated grouse of the West. Every open prairie spot or lone wheat-field contained "chickens" in those days. We drove up the *coulées* and out on the prairie, turned loose the dogs, and got out to shoot when the dogs came to a point. Sometimes we shot from the wagon, though the horses usually objected to having guns fired over their heads. The shooting began in August, but before that we went out, without guns, to train the young dogs on the little chickens. It was famous sport to see a timid young dog point, and creep up step by step upon a covey, until he reached a place where he could not be urged or driven farther because of the heaviness of the scent. When the covey rose and scattered, and the young chickens were

marked down, there would be more point, creep, crawl, and tremble from the young dogs—the ones behind "backing" the one in the lead with blind confidence in his nose. The small birds would often lie so close that the dog could come within a few feet of them, and the small boy could catch them in his hat. When caught, the distressed "peep" of the bird would almost drive the dogs out of their minds.

But nothing was hurt until the chickens were nearly full-grown. Then the season opened up with one or two dogs and three or four guns. After the covey rose, was shot at, scattered, and marked down, the dogs began showing their best work in pointing the single birds. Then, too, began the best shooting. It was not difficult shooting. An older brother one afternoon shot thirty-three birds (which included nine double right and left shots) without missing a bird. He stopped then because the bag was full, but it seemed as though he could have gone on indefinitely without missing. To be sure, he was the best shot with gun or rifle that I ever knew, but then the prairie-chicken was not a difficult bird to knock down. He took to wing and travelled about as fast as the grouse on the Scotch moors—no faster, no

slower. Late in September, when larger grown and stiffer of wing, he rose at greater distance and required quicker work. But during the first two weeks of the season the shooting was easy—so easy that, as I have said, it was sometimes done from a wagon.

The prairie-chickens in the early afternoons were usually in the cover of long grass about a grain-field, dusting in the gopher hills, or lying in the shade of some scrub oak. The dogs found them there, and when the covey rose the guns took what they could. After the remaining birds had scattered, each bird lay close and rose singly. The shooting was assigned to the guns in turn. We usually had some Eastern visitor with us, who was given the courtesy of first shot. After his new double-barrelled breech-loader had been emptied, and without results, the field was open to the family in step-ladder order—the youngest, of course, coming in at the end. When every one had fired and missed, and the youngest finally brought down the bird with his single-barrelled muzzle-loading musket, there was some Homeric laughter indulged in. That was called "eye-wiping." It was highly esteemed as a hunting stunt. I remember the youngest "wiping" the

eyes of two shooters on a summer afternoon, not once, but seven different times. It is a wonder the discomfited did not shoot him for his unconcealed insolence of triumph.

In October the coveys came together in great gangs, in flocks numbering hundreds. They then came down from the prairie heights and took up with the valley corn-fields, where the farmer boys would occasionally hunt them by surrounding a gang, moving in on them simultaneously, and shooting them overhead as they flew out of the field. They were at that season of the year not very good to eat, being thin and tough; but the shooting was acceptable and fairly difficult, since the birds flew fast and wild. But there is no more of that. The prairie-chicken is now almost as scarce as the buffalo, and the day is merely to-morrow when he will be as extinct as the grizzly.

The sharp-tailed grouse that I used to shoot in Montana in the eighties now puts in only an accidental appearance, if indeed he is to be found at all. I have not seen one for thirty years. The sage-cock, a fine large member of the grouse family, also belongs in the scarce category. In the early days no one would shoot him or eat him because of the tradition that he tasted "sagey,"

but the sportsman came in and shot him "just for fun," with the result that there are few left to shoot. The fool-hen (Franklin grouse) was in the Siskiyou forests of Oregon twenty years ago, but I have not heard of him or from him since. He was such a confiding dunce that every pot-hunter must have found him an easy mark.

The grouse of the Scotch moors corresponds rather closely to our prairie-chicken, having like habits, and not dissimilar ground over which to roam. I never shot at them. In my Scotch days I had quite gotten over the desire to kill things; but I used to go out with the shooters almost every day to see the dogs work and to view the moors. I have also seen the shooting of grouse from butts, though I cannot speak of its difficulties from a shooter's point of view. I have heard men like Lord Alverstone (when he was Sir Richard Webster) and Yates Thompson talk away half the night about driven grouse, but I never got more than a yawn out of the conversation. The wonderful moors, than which there is no finer country in the world, with their flowing lines, their purple heather, and their splendid skies, would never come in for a moment's comment. It seemed very odd that grown-ups could

so miss the glory of the world for a smell of burnt powder and a few pounds of flesh.

The grouse of Great Britain are merely a fad of the rich, and yet the poorest of the poor are tremendously interested in the bags made on the 12th of August. And every one in the land will recite for you:

> "Up gets a guinea,
> Pop goes a penny,
> Down comes half a crown."

The meaning, of course, is that a grouse costs a guinea to raise, a pennyworth of ammunition to kill, and that dead he is worth in the market only half a crown. The bunches of grouse that come into the London markets immediately after the opening of the shooting season are always curiously eyed by the passing crowd. Perhaps that is as near to the open as many London dwellers ever come.

The American ruffed grouse, usually called a pheasant, is an Eastern bird, and is not usually found far west of the Mississippi; but in Minnesota days we shot many of them in the woodlands and bushes around the bases of the river-bluffs. The prairie-chicken was something of a fool com-

pared to him. He got up unexpectedly out of a thicket, scared the shooter almost out of his wits with his bustling roar, and went up and out through the trees like a meteor. You caught him with a snap-shot, if you could. More often than not he went scot-free. He would lie to a dog only when young and in the covey. When older grown, he ran in twos and threes and rose wild. A famous game-bird—one of the most famous on American soil! I used to hear his drumming in the early summer and made many attempts to see him on his native log in order to find out how he made that sound; but he was perverse and never drummed when I was in sight. To this day I am in ignorance as to whether he beats his wings against the log, against his breast, or against the air. Perhaps the drumming is in kind a similar performance to that of a barnyard cock that flaps his wings before crowing.

The ruffed grouse, during the fierce Minnesota blizzards, often took refuge under the snow. So, too, did his smaller cousins, the quail. It was the same "Bob-White" quail that we knew in the Eastern States, but grown perhaps more hardy by Western exposure. Usually in severe weather the covey would get together under the lee of

some snow-bank on the edge of timber, where, protected from the wind, they would sit through a big storm; but they have been found singly inside the snow-bank and frozen to death. The lack of food rather than the weather caused their death. Almost any bird, with a full crop to draw upon for heat and his high bird-temperature, can get through severe cold; but he starves out very easily.

It is usually said that the migration of birds in the spring and autumn is to avoid cold, but it would be truer to say that they migrate because of food conditions. The song-birds come early in the spring and stand much rough weather, and they go early in the autumn when the temperature is still warm. The robins, for instance, come when the worm supply is plentiful, and the assumption is that they prefer worms to any other diet; but as a matter of fact, when the summer comes on and they can get fruit and berries and seeds, they never touch worms. When worms and berries both go out the robin goes South, even though it is warm October.

The Minnesota quail, as a game-bird, was our delight, and practically our exclusive quarry. No one else would hunt him in the early days be-

cause he was not big enough—not enough of a table asset. There never was a more princely member of the grouse family, never a finer game-bird. We loved him for the October woods, the fallen leaves, the golden fields, and the mellow sunlight. To this day he is in memory so closely associated with the happy autumn fields and the days that are no more that tears "rise in the heart and gather to the eyes" in thinking of him. It is such a pity that we ever shot him! It seems now, if it did not then, that we were killing the spirit that animated the whole scene and made it worth while. But the boy has little or no sentiment; he is merely a boy. We shot, and the quail, being no such swift dodger as the ruffed grouse, went home with us.

I never had quite the same sentiment about the California valley-quail, because he was only a hoodlum compared with Bob-White. Thirty years ago he travelled the country in gangs of several hundred and inspired about as much love and respect as does the present-day starling of the Atlantic coast. Every one who wanted a meal shot at him—even pot-shotted him on the ground with his fellows. He would not lie to a dog when in large flocks, and the flock had to be scattered

before any single-bird shooting began. Even then the shooting was tame as compared with Bob-White. You shot and ran for your bird before he crawled down a gopher-hole or crept into a cactus patch. Unless he was killed outright, he was a difficult bird to bag. The spirit of life was strong in him, and his little legs would keep running, even though his wings were broken and his body shot-laden. One had to concede his toughness, even when he got on the table. He had that quality of endurance that belongs to all life on or near the desert.

But the valley-quail has gone the way of all game in the Southwest. There were always a few scattered flocks of them in the desert, living near water-holes or near underground water; and some of these flocks still remain there because the tourist in his car, with his shotgun on the front seat, will not go so far afield. Perhaps for a similar reason some flocks of the mountain-quail—no relative of the valley-quail—are still to be found in the inaccessible parts of the Coast Range. Of recent years they have taken to the thick chaparral of the high mountains where gunners cannot go, and that, for the moment, has postponed their extinction. They are not so wary or fleet of foot

as the valley bird, and their habit of standing on rocks or logs and curiously eying the stranger is fatal to long life. With so much confidence they are easily shot. I have seen them often and watched them by the hour, but I am pleased to record that I never shot at one. They were too innocent and too beautiful to be killed.

As for the woodcock, the Pacific slope never knew him. He is an Eastern and a Mississippi Valley bird, or perhaps I should say *was*, because he is not now to be found in the creek bottoms and brook resorts where once the soft mud was peppered with the "borings" of his long bill. Occasionally an odd one comes back to the old haunts, and at your approach rises wild and flies fast, but his kind has so dwindled away that it may almost be counted as vanished. Where the few living members of the family continue to breed can be guessed at but not readily ascertained. There are some left, and near my New Jersey home I still see an occasional one in the spring or fall, at the times of migration; but the sight is a rare one in these days. Only this last spring I saw a male bird by the edge of a brook, strutting up and down like a little turkey-cock with his tail spread and his wings trailing the ground; but

alas! he was strutting alone. There was no hen bird near to admire him and mate with him.

The woodcock never was very gregarious, never a gangster in flocks of hundreds, never a hoodlum. He was always an aristocrat, living in the solitudes, quite alone except at the breeding-season, always more or less sufficient unto himself. The dozen or fifteen in the young brood trailed with the mother, quickly learned for themselves how to bore for worms, and by the 4th of July were almost, if not quite, full-grown. They were generally found alone after the last days of June, and remained alone until the next year's breeding-season. They were always in hiding—in the grass, or thickets of willows, or in briar patches —lying close and very difficult to see on the ground. Sometimes it was possible to flush them by tramping near them; but a dog was usually necessary in hunting them.

The most intelligent work of which a dog was capable would come to the fore in hunting woodcock. The scent was by no means so strong as that of the quail, and single birds lying in thick cover gave out very little intimation of their presence to the twitching nostrils of the average "bird-dog." It required either a young and timid setter

or an old and careful one to handle woodcock quite right. Little could be done by trailing, and so we allowed the dog to work against the wind with upraised head, getting the scent by winding. The necessity was for a slow, trotting motion, with great care that an instant stop should be made at the first faint scent.

We had beautifully trained dogs, for we hunted woodcock in the Mississippi bottoms very often in the early Minnesota days. After stumbling over and flushing a bird or two, and being cuffed and scolded for it, the setter came down to a slow trot, and, when the scent came on the wind, the gait was reduced to a walk, and finally to a dead stop—a point. I can see that young timid setter snuffing the breeze and trotting back and forth through the little maple thickets of the Mississippi bottoms, as plainly to-day as fifty years ago. What cunning he had! How well he came to know the game! And what splendid game it was!

When at last we walked in ahead of the dog and flushed the bird, how that bird whistled up through the tree-tops or swung out at the side and turned the corner of the thicket, or corkscrewed back over our heads! It required all our

quickness and skill to stop him. He was, all told, the very hardest bird on our list to hit. And alive or dead the very noblest to look at. We shot at him as he disappeared through the leaves of a tree or over a tree-top, and were almost sorry when, a few minutes after, a few light-brown feathers fluttering down to earth would tell us that we had made a hit.

In September we hunted woodcock during the early afternoon, and at sundown went to the rice lakes for the evening flight of ducks. The woodcock were not so numerous that we got more than a dozen or so at a time, except during one July rise in the river. The rise flooded the bottom-lands and drove the birds step by step up to a ridge of high ground perhaps two hundred yards wide and a mile long. We surmised that the woodcock might be bunched on that temporary island and went there in the canoes with a dog. But the dog was quite superfluous. There were too many woodcock, he became bewildered by them, and finally came in to heel with lolling tongue.

Woodcock got up every few feet. I had never seen so many. There were hundreds of them. But another winged spirit excelled them in point

of numbers. That was the mosquito. There were billions of them. They, too, it seemed, had been driven out of the flooded grass-lands to higher ground. We attacked the woodcock but the mosquitoes attacked us. And we fared worse than our game, for we had to quit almost as soon as we had begun. The next day we came back reinforced with gloves and nettings about face and head, but again we had to quit. The mosquitoes, with bills as large almost as those of the woodcock, bored through to our backs and shoulders, and assaulted our legs through breeches and boots. We got into the canoes and "beat to open sea," with the mosquitoes following after us in a cloud.

The great numbers of woodcock on that point of land remind me that one year in Minnesota there was a flight of English (Wilson) snipe that came from I knew not where and disappeared as mysteriously as it came. For ten days the slough-banks were lined with snipe. They got up and squawked and gyrated away at every foot. Another year appeared many flocks of golden plover —the first and the last ones I ever saw. And in 1870, or perhaps it was 1872, the sky was darkened with flocks of wild passenger-pigeons. Again

and again, day after day, I saw passing up the Mississippi Valley cloud-flocks of pigeons that extended from the Wisconsin to the Minnesota bluffs, a distance of five miles. The flocks continued daily and all day long for several weeks. Everybody shot into the nearer and smaller flocks, until the pigeon became a nuisance in the kitchen and an unappetizing article of food on the table.

In that year the passenger-pigeons had a monster roost in the Mississippi bottoms near the mouth of the Chippewa River, where the birds swarmed like bees, where every little tree was loaded down with nests, and eggs, crowded out of the nests, were lying on the ground so thick that one could hardly step without crushing them. When the young pigeons were half-grown and could not yet fly, some "sportsmen" went there with clubs, shook and beat the trees until the young birds fluttered out and fell to the ground, and then the "sportsmen" tore their breasts off with their forefingers, flung the breasts into a bag, and threw the carcasses on the ground. That is the wretched kind of thing that one does not like to write about or think about, and yet it was perhaps just such butchery that was responsible for the absolute extinction of this bird.

There were such numbers of them then that scarcity seemed a word to laugh at. The roar of that pigeon-roost—a roar like a distant waterfall—could be heard at Wabasha, eight miles away. The roar came from the "knac-a" call of the birds, mingled with the flutter and beat of countless wings.

The coming and going of birds in great flocks or gangs illustrates a gregarious instinct without exactly explaining it. In the spring and fall almost all the birds get together in family flocks, and then move North or South together, presumably for mutual company and protection. The robins, blackbirds, bobolinks, swallows, bluebirds, do this as invariably as the ducks and geese. The practice seems not different, except in continuance, from the travel of herring, mackerel, or bluefish in the sea. There is evidently a feeling of safety in numbers, and though toll is continually taken by hawks and guns and porpoises, each one probably thinks his turn has not yet come.

But the appearance of Wilson snipe, to which I have referred, as also that of the passenger-pigeons, was sporadic, confined to one year, with no precedent or subsequent appearance. In Montana, in 1883, I witnessed a great flight of sickle-

bill curlew, lasting for three days of wind and rain, that was again unprecedented in my experience. They came in flocks of twenty or thirty, following like waves at sea, flying low and making no sound. It was almost unbelievable that there could be so many curlew on the continent or in the world. There were thousands upon thousands of them. I knew that the curlew bred on the plains and table-lands, and I had been followed when on horseback for long distances by dipping and hawking birds because I had come too near their nests; but what Montana and Wyoming bred in curlew could never have accounted for the enormous numbers that passed overhead in those few days. Penguins, pelicans, cormorants, divers, ducks, and geese in huge gangs were not unusual things along the shores and waterways of the Pacific; but curlew in thousands in Montana, in August, was an entirely new story.

But nature is always presenting us with surprises. And perhaps we are surprised only because we are ignorant. Our knowledge is very fragmentary, and we have done very little toward putting together the fragments. The world has been plagued with theories, and practically all of

them based on insufficient information. If we but knew our facts, they would point their own conclusions, and neither theory nor argument would be needed.

CHAPTER XIII

THE DEER FAMILY

When the snow began to fall and the cold became intense we put away the shotguns and got out the rifles. The deer season had arrived and there were many deer in the big woods of Minnesota and Wisconsin in the early days. But they had been shot at by the Indians and hunted by whites until they were very shy. Instinctively they watched their back track and, after pawing up a bit of moss or dry grass from under the snow, they would look about in every direction with eyes quick to detect the slightest movement and ears set like receivers to catch the slightest sound. The pack of snow under foot, or the whip of a branch, would start them as though shot at by a machine-gun. It was difficult to outwit them, and the days that went by without so much as seeing the white flag of one were numerous, consecutive, and continuous.

Still-hunting was the only method employed. Driving or hunting with dogs had gone out before it was really begun, because the dogs were

shot instead of the deer as an expression of no confidence on the part of the settlers. One had to outgeneral the deer unaided and on his native heath. It required great patience and skill to do this. And there was no place more difficult for still-hunting than the interior of the big woods. Tracking in the snow, aside from getting a direction, was almost impossible because of the multitude of tracks crossing and recrossing; and a general direction was often blocked by the trail running into a windfall, where travelling over fallen tree-trunks was again almost impossible. Even shooting in a windfall at a deer hurdling over tree-trunks was a great gamble, with the odds two to one against the gambler. Occasionally in the woods a fool-deer would get up leisurely from a bed and, after stretching himself, would stand and look at the hunter, like a calf in a barn-yard, presenting a broadside shot; but more often you took a chance at a pair of horns going down over the far side of a fallen pine, or a bit of white tail disappearing around a tree-trunk. Your bullet would perhaps knock the bark off the tree-trunk, but the bark on the deer generally remained as firmly set as ever.

I need not detail the methods employed in

still-hunting deer, since a member of the family has devoted a book* to it. Much of his experience was gained in the Wisconsin woods at just this time. I never cared much about hunting deer in the Wisconsin or Minnesota forests. The woods were always too thick and gloomy. The open and the sunlight have always been my preference—a land where you can see game without interruption of sight Years ago there were plenty of deer in British Columbia, Washington, and Oregon, and I used to start them quite often while fishing the brooks in those countries; but I never hunted them. There are deer still in the White Mountains, the Adirondacks, the Catskills; and only a year ago I found an old doe in woods within twenty-five miles of New York that was too wild to have escaped from a park; but again, I never cared to shoot at any of them.

In Scotland, in 1894 or thereabouts, I was taken out one morning to see a Caledonian forest and some red deer that were to be hunted therein. The forest turned out to be a hundred-acre patch of scrub pine on a side-hill. The deer were driven out of it by beaters and shot at by gunners stand-

* *The Still-Hunter*, by T. S. Van Dyke, New York, 1920.

ing on the outside. It was very much like shooting cattle along a country road. I tried to explain my lack of sympathy by saying that as a boy I had known the big forests of the Northwest, where the sunlight and the snow both had difficulty in falling to the ground, so dense was the foliage and so great the stand of trees; and that I had known the great herds of buffalo and elk, and could not get excited over a few barnyard deer. But it was useless. I was listed in the *nil admirari* class.

The deer of the Continent were also too domestic in habits to evoke much enthusiasm on my part. I never went from Berlin to Dresden without seeing deer in the open fields, picking over turnips or cabbages like long-necked goats, and paying less attention to the train of cars than the horses on the highway. Of course these deer were accustomed to being fed during the winter and had become very tame. Shooting them seemed only a poor way of slaughtering them. In the forests of small pine in eastern Germany and in the woods of western Russia the deer were much shyer, and, in company with wild pigs and barnyard grouse, no doubt, at one time afforded imperial families great sport; but the tang of the wild was never theirs.

European game, with the exception of the chamois (a delightful animal to watch, not to shoot), has always seemed to me too closely associated with the gamekeeper's feed-pan. In some of the countries the deer would keep in cover, but they were, nevertheless, rather tame, and in other countries game of any sort was apparently scarce. One day while climbing Monte Cavo, near Rome, a red fox came out of the woods, looked at me for a few moments like a strayed cat, and then turned back into the woods. He had evidently been chased by a hunt-party on the campagna and had got away with a whole hide. That was about as much game as I ever saw in Italy. In Greece, Turkey, Asia Minor, and the Balkans I never saw anything shootable, except some of the hotel people and a few camels that had been recommended for tourist travel. That does not mean that I looked for game in the streets of Bucharest and Brusa, but it does mean that I could find no traces of game in some of the wild ends of the Near East. Doubtless it was there, but I did not know where or how to look for it.

I knew my Montana country much better, and in the table-lands, Bad Lands, and scrub-pine regions of that State had no trouble in finding

deer in numbers. In the buffalo days no one bothered with them, and even elk were not greatly sought after; but as soon as the buffalo were exterminated attention was focussed upon the elk and deer, and their ranks began to thin out. Still, all through the eighties and nineties there were white-tailed deer in the river-bottoms, in the pines, and often on the table-lands about the broken trenches and washouts. In Custer County there were many of these huge trenches or sunken beds that ran across country sometimes for several miles. No one seemed able to explain them geologically or meteorologically—by fire, water, earthquake, or subsidence. They were great troughs, with precipitous sides that grew bushes and tall grasses of various kinds. The deer, in the early morning before sunrise, would be found browsing on these bushes, and I often stampeded them by riding at a sharp pace along the rim.

When started the deer generally dropped down into the bed of the washout and bounded over the stones and bushes to get away. By jumping quickly from my horse I got running shots that were exciting because very difficult. The difficulty was to score. Shooting down into a trench meant that nine times out of ten you would over-

shoot your mark unless the special precaution of holding low down was taken. And there was some very lively running to be reckoned with. When I hit, I counted myself lucky, but I did not hit often enough to grow conceited over my success. The rifle on running game was never so deadly as some of the shooters would have had us believe. There were feats of shooting that the rifle would not do, and a great many more feats that the man behind the rifle could not do, except occasionally. He would not generally admit this, but it was nevertheless quite true.

Probably the easiest deer-shooting in the world was at one time to be had in the Coast Range of Southern California. It was practically open country, though there was enough cover in the chaparral, pinyons, and small oaks to hide deer from the most observing of still-hunters. The mule-deer, with something of the mountain-sheep about him, always loved this half-open country with its park-like spaces, and at one time would lie under the shade of the live oak in the heat of the day almost like a cow in an Eastern meadow. But if you looked for him there, with a rifle in hand, you would never find him. He was always somewhere else at your psychological moment.

I never saw any of the family lying down in these green pastures, and am merely telling the tale of my Still-Hunter brother, whose experience with deer in Southern California has been vastly greater than mine. In fact, he knew Southern California at one time so intimately that I think he had every mule-deer marked down on his particular stamping-ground and knew just where to find him when he wanted him. By way of confirmation I repeat his story of one year shooting at a mule-deer's head in the chaparral, seeing the deer shake his ears violently, and then bound away. The next year, in the same chaparral, he shot and killed the same deer, and found that his bullet of the year before had gone through the flaps of both the deer's ears and left small, round ear-holes.

Putting holes in deer, either through their ears or elsewhere, never added much to my joy of living. The very few I killed were more embarrassing to me dead than alive. I did not know what to do with the carcasses. When in the desert I made many strips of dried "jerky," but they weighed like lead, and I was glad to give them away to Mexicans and Indians. So I finally refrained from shooting, hunted without a gun, and was just as much pleased when I corralled a

deer in a bowl in the hills as though I had shot him.

It is always amusing to watch an animal that is unconscious of being watched, though it may be unfair to the animal. And deer are always so graceful. They browse leisurely, reach up high by standing on their hind legs, rub their side or back against a tree-trunk, and then look all around for possible danger. They are always on the alert, with eyes straining for the slightest movement and nostrils twitching for any strange scent upon the breeze. Raise your head above the rock where you are hiding so much as a few inches and your deer springs as though shot at, strikes the ground with all four feet, bounds like a rubber ball, and keeps bounding until out of sight.

The fawns seem to be rubber-shod at birth, and bound like the old ones without perhaps knowing why or how. It is astonishing that they can keep up with the mother, running by her side but never running into her, and running through chaparral, over loose rock, down canyons, up mountainsides, apparently without effort, but oh! so fast! The whole family, big and little, will rush across a talus of broken stone, contain-

ing rocks as large as a water-bucket, without so much as wrenching a dew-claw or scraping the hair from a fetlock. And when it is necessary to take a high jump, how prettily and easily they all rise to it! Grace seems a quality of all the deer family. Even the dwarf Sonora deer runs and jumps in miniature like the larger mule-deer. But not so with elk and moose. The action is much heavier and often plunging and clumsy.

Shooting elk always seemed something that called for apology. They are now very scarce, probably because they were never very quick-witted and lent themselves to being shot with great readiness. In Montana one day a band of eighteen filed in front of me, as might a bunch of range cattle on the way to water. They came my way for no reason that I could divine, and were so close that with my thirty-thirty rifle I could have shot two or three of them before they could have got out of the way; but I never so much as looked through the sights at them. Years ago in the Yellowstone Park they were so tame that they hung around the tents of the campers and were fed out of hand. Now the remnants of that park band drift south each

winter into Jackson's Hole, where the poachers find them. The elk in the open is scheduled for a disappearance. He is not fitted to survive except in a zoological garden. There he seems to flourish.

The antelope has practically vanished. What a pity! In the eighties he was the life of the plains and the table-lands—the most graceful evanescent creature imaginable. But he always had an inordinate curiosity and could not resist looking and looking. One day, in turning the corner of a butte, in a rattle-and-bang cross-country wagon, I came up with three antelope that stood and looked at the horses and wagon, and heard my companion and myself talk, with the utmost composure. They were at attention, motionless, head up and eyes bulging, not fifty yards away. They did not move when I jumped out of the wagon, went to the back of it, and got out a rifle. I fired over their heads, and with that they took to flight. When they got started, they went like the wind for half a mile without stopping or looking back. Then, having attained a height on a side-hill, they bunched up together, faced about, and stood motionless looking at us for ten minutes. I fired another shot to the left

of them, but they did not move at the sight of the smoke. The chug of the bullet in the ground twenty feet from them started them into a run and they disappeared over the ridge.

In an earlier year, in Custer County, Montana, when antelope were more plentiful, I remember shooting several and being greatly impressed with their strength and endurance. Unfortunately, I broke the foreleg of a young buck one day, but he went off with the rest of the band almost as rapidly as his companions. They all went along easily with legs that seemed somehow to open and shut like the springy blades of a penknife. At another time I shot an antelope from the side of a butte, he being somewhat below me on level ground and running rapidly at broadside to me. When I shot I distinctly heard the bullet strike the animal with a little thud. Instantly the run changed to a trot, which was kept up for a hundred yards with all the beauty and swiftness of the world's greatest trotting-horse. Then the antelope sprang high in air and fell dead. I was at that time experimenting with expansive bullets that spread like a mushroom when they hit an animal, and much to my surprise I found that my trotting antelope had not only been shot

through the heart but that his heart had been torn literally to pieces by the expansive bullet. The shock of such a wound might be relied upon to produce immediate collapse, but the antelope lived several minutes after, and trotted his hundred yards before giving in.

In the summer months there were fawns of different ages and sizes with every small band, but I never could find a fawn so young that it could not keep up with the band in running. They ran close together, like horses on a race-track, and when they stopped they would bunch up, stand still, and look, with the little fawns in the centre and the bucks on the outside. In the Indian days when buffalo were stampeded the old bulls always ran on the outside and the cows and calves on the inside; but I never noticed this order of flight with antelope. The bucks, however, like the rams of the mountain-sheep, were always on the alert and ready to protect their progeny and their mates. At night they formed a ring against gray wolves and coyotes, very much as did the buffalo, and with their prong horns and sharp hoofs could make a good fight. But in the long run the wolves got many of them.

In the Montana country I occasionally found antelope down near the creeks or beside water-holes, but I never saw one of them drinking, and I doubt very much if they ever really drank any water. There was enough green grass and pulpy cactus to furnish moisture for them, and probably they subsisted on such foods, spurning the water that the white-tailed deer found so necessary. Down in the desert regions of lower Arizona and Sonora, where there were a few small bands of antelope twenty-five years ago, the water conditions were still more stringent. I found antelope in places where there were no water-holes whatever; but the ordinary lobed cactus and the cholla were growing on the slopes and mesas. Mule-deer and desert cattle eat these cacti and swallow even the spines, as the contents of their stomachs have often revealed; and I fancy the desert antelope did likewise. It is an odd thing that camping for a week or ten days at a time by a water-hole in the desert—the only one perhaps within many miles—never revealed to me animals coming in at evening to drink, as pictured in African big-game stories. The desert animals in our American deserts rather ignore the water-holes, giving them over to quail and flocks of mourning-doves.

The few desert antelope that I saw in western Sonora were fat enough but rather dusty and arid-looking, save for their white rumps. They seemed to like the flat valleys, and when near dry lake-beds they were often much mixed up in the mirage, took on long stilted legs, and had a spectral appearance. I never saw the antelope at the north do any marked flashing with the white erectile hairs of their rumps, but down in the deserts the antelope would turn and flash in the sunl ght very often, especially in the early morning when the sun was just over the horizon. What this "flashing" signified I was not able to guess, but it certainly was not a confirmation of any protective-coloring theory. On the contrary, I frequently got my first intimation of the antelope's presence by seeing these flashes of light.

The small bands and meagre numbers of the desert antelope (they probably do not exist at the present time) tell the rather pitiful tale of the hunted being driven from the grass-lands, the table-lands, the uplands, down into the far ends of the desert, seeking escape from the soft-nosed bullet. There is a similar story to be told regarding the mountain-sheep and the white goat. They

have receded into the snow-line—melted away from the meadows like the snow itself. Now you find them only in the inaccessible spots.

In the eighties, in riding the northern buffalo range, occasionally, in a deep-set swale or a pot-hole in the hills, I stumbled upon some lone buffalo-bull, hiding by day from hunters and by night fighting off gray wolves, the last of his herd, surviving by prodigious strength, and determined to live on, though alone. They were always pitiful creatures, with wild staring eyes like those of the cattle being driven into the slaughter-pens at Chicago. They could fight off all natural enemies and increase their numbers,* but they could not stand up against the skin-hunter and his rifle.

The rifle, the axe, the plough, and fire—the four riders of the modern apocalypse! Some good has come from them, but has there not also been some hell following in their wake?

* I have written about the great buffalo herds in *The Mountain*, and need not repeat the tale here.

CHAPTER XIV

WOLVES AND BEARS

The deer, the antelope, and the sheep have had their numbers reduced, not alone by soft-nosed bullets, but by coyotes, wolves, and cougars. In the ancient days the gray wolves hung on the flank of a buffalo herd as remorselessly as the bluefish on the edge of a school of herring. They were always pulling down the young, the sick, and the crippled as opportunity offered. When the buffalo passed out, wolf energy was concentrated on the elk, antelope, and deer. To-day, with all wild game scarce and the wolf-pack greatly reduced in numbers, the lone outlier prowls about the diminished cattle-ranges and picks up what he can get.

Originally he was not a sneaker but a chaser. He ran his game and caught it on the run. Moreover, he ran with the pack, and when one gave out in a chase, another took his place in a relay that could overtake the fleetest and the strongest deer or antelope. This may seem an odd thought, because the wolf never was a swift runner, being

too short of leg and long of body; but he made up by endurance and possessed a terrible tenacity. He hung on and drove through and wore out by the long run.

Being now quite alone in the world, the wolf varies his tactics and occasionally resorts to the strategy of stalking. In this way he comes near his quarry and then makes a sudden dash upon it. Possibly he has been taught something of this by his admirers, the coyotes, with whom he frequently consorts, or rather by whom he is followed. The pelican is usually accompanied in his flights and plunges by a gull that swoops at every fish the pelican catches. This is the estate of the wolf. The coyote hunts with him or behind him, and comes in for any of the carcass left over. He has a better nose and ear than the wolf, travels faster, and is much keener in hunting up food supplies. He also helps the wolf by locating danger. The wolf is very strong, reasonably brave, has a formidable jaw and teeth, and makes a savage attack, but he does not like danger and will run rather than fight. Therein the coyote is in hearty accord with him, only the coyote will run sooner and faster than the wolf.

In the early cattle days in Montana and Wyo-

ming, I saw much of the old gray wolf. The herds of cattle made better picking than the herds of buffalo, because less well-guarded. Always with the buffalo the bulls were on the lookout, and at night the small herds were formed in a ring, around the outside of which the bulls patrolled. The wolves never broke through those circles. The heads and horns of the bulls were not to be trifled with by any wolf, no matter what his age and strength. The buffalo-rings in the prairie soil, made by the milling bulls, were to be seen everywhere up to the coming of the plough. They looked a little like depressed circus-rings. With cattle there were never any such organized defenses—the cows and calves straggling in small bands, and the bulls fighting only when danger was thrust under their noses. The result was that the gray wolf and the coyote waxed fat on the weak and the young.

Just how they manœuvred I one day had an opportunity of witnessing. It was very early in the morning and I was sneaking up to the top of a divide, rifle in hand, with the idea of perhaps catching a deer off guard in the swale below. As I looked carefully over the top, instead of a deer, I saw a cow with a week-old calf beset by two

wolves. One of them was snapping at the cow's head and keeping her busy lunging at him, while the other was dashing at the calf to stampede it from the mother's side. It seemed a planned attack, and was successful; for as I watched it the second wolf got a snapping bite at the calf's hind quarters and so frightened it that it set off, with a bawl, across the prairie. That was exactly what the second wolf wanted. He took after it and bowled it clean over by jumping against it. Perhaps his jump was not wholly spontaneous or premeditated, for just before he sprang I shot at him. The bullet burned a ridge through the hair on his back and probably at the same time lent some erratic energy to his spring against the calf.

At any rate, he quickly recognized that the pursuer was being pursued and started off on a swift run. My second bullet caught him in the rear and drove clear through him, coming out at his shoulder. He wilted in his tracks. The first wolf made a complete getaway, with my bullets doing no more harm than ripping up the ground about him. I went down to inspect the bawling calf (it was apparently unhurt), but, of course, the fool-cow, with characteristic lack of discrimination, came at me, and drove me off the premises.

The wolves, with the cattle-rustlers and the hard winters, had much to do with breaking up the large herds that grazed on the buffalo-ranges in the early eighties. The toll of the wolves in calves alone produced great losses. Later on, when a State bounty was put on their heads, wolf-hunting became a border industry, with the result of perceptibly diminishing the band. Guns and traps proved very effective. As the breed grew less, the survivors grew more wary. The wolf is not naturally very cunning, but he, nevertheless, knows a hawk from a hernshaw when the wind is east. He soon learned to keep out of a trap and to decline poisoned meat. Anything that had been handled by a man he would walk warily around and sniff at contemptuously. Poison inserted with the end of a stick would sometimes deceive him, but he shied at finger-prints, and could smell out the human taint on a trap days after it had been set for him.

I dare say the cats have just as keen noses as the dog or wolf family, but they seem to make less use of them. A wildcat or a lynx is more easily inveigled into a steel trap than a wolf. The wolves, moreover, have a way of gnawing off a leg caught in a trap, but I never heard of a cat

or a lynx doing anything so heroic. It will break its teeth biting on the steel, but it has not the necessary fortitude to bite into itself. The sense it makes most use of is that of sight. The cat's eye is large, very sensitive to light, and very accurate in its impression. Every one who has watched the ordinary house-cat sneaking on a bird or a squirrel knows how it will thrill and twitch at every slight movement of the prey. The wildcat is simply an enhancement of this.

Having to hunt for a livelihood, the wildcat has keener eyes, sharper teeth and claws, stronger muscles, quicker movements than the domestic animal. As a sta'king machine it is a great success and the prey usually fares badly; but when it is hunted, the cat is neither very cunning nor very wary. Nor has it nine lives. My experience goes no further than the shooting (and quick killing) of two cats, but the experience of my Still-Hunter brother goes a little farther. It seems that, while in Southern California one winter and carrying out some experiments with explosive bullets, he came upon a wildcat sunning herself upon a huge flat rock, with three kittens playing around her. He shot at the old one, hit her in the neck, and the fragments of the explosive bullet

killed all three of the kittens. Four cats with one rifle-ball! At least that is the story as it came to me.

The lynx is a sort of enlarged cubist cat in the sense that its lines are more angular, its paws squarer, its head and body more block-like than those of the wildcat. It looks formidable and is so to rabbits, squirrels, prairie-dogs, and birds; but it moves away from man at a hand-gallop with the first warning. I shot one specimen near Castle Creek, Arizona, as he was leisurely walking about a pot-hole in the rock and surveying the gray-green water contained therein. He did not act as though he wanted water to drink, and as a matter of fact the desert lynx never laps anything but blood; but he was surveying the water-hole, perhaps, with the idea that some frog or bird thereabouts might prove edible. When the bullet broke through his ribs, he gave a great bound into the air and fell on his back, dying with only a few kickings of the hind legs. He was the largest specimen I ever saw, and must have weighed some thirty pounds. Hung up by the heels on a tree, his square head and heavy paws reached down to an extraordinary length. His teeth indicated that he was very old,

but how many years he had put in killing quail and rabbits I could not determine.

The largest member of the cat family in America is the puma or mountain-lion or cougar, which is still found almost everywhere in the Rocky Mountain regions. He is a true cat (and a real panther), having all the habits of a cat and leading a cat existence. He is a terror to almost all game, though he will not attack humanity unless driven into a corner. He can fight savagely enough and, as he weighs nearly two hundred pounds and has claws and teeth of steel with muscles of whip-cord, he is not to be considered lightly. His teeth will go through the skull of a bloodhound without preface or apology, and his claws will rip the ear off of a deer as though it were made of brown paper. Horses and cattle hold the mountain-lion in deadly fear, and all the sheep, goats, and deer are in constant terror of him.

The last one I saw was in the Cheetah Mountains of Montana. I was riding without a gun and he was prowling in some open pinyon timber. When he saw me he flattened on the ground precisely like a house-cat when detected hunting in a meadow, but as I came nearer he started to

run for a small pine—just like a house-cat again. My horse saw him and was terror-stricken at once, so I could not get very near him. The lion got up into the branches of the pine and there glared at me with half-opened mouth and flattened ears. He seemed nettled by the snortings of my horse and swung his tail from side to side, once more like a house-cat. But the horse behaved so badly that I had to ride away before I had finished making observations.

The cry of the mountain-lion is difficult to describe, but one recognizes it quickly enough when he hears it. It is sometimes the scream but more often the yowl of an enormous cat. Heard in the night it is perturbing, notwithstanding your knowledge that the lion never attacks man. You know that, but does the lion know it? He might forget. At least, you are a little uncomfortable about it. Your dog growls over it, but he makes no move to chase up the cry in the dark. He, too, is a bit nervous. Both you and the dog are aware that at night he has the advantage with his cat's eye. It is almost like the eye of an owl for seeing in the dark. You perhaps stir up the campfire hoping to locate its reflection in the eyes of the enemy, but the enemy is not so foolish as to

give you such a shot at him. He yowls and moves on, knowing very well that you cannot follow in the night.

The round eyes of a panther, seen by the light of a camp-fire in the forest, have appeared in more than one book of adventure; but I never remember reading anything about the pig eyes of a bear peering through the underbrush. Yet the bear prowls by night and often comes into camp—something the panther never ventures upon. Since the days of the national parks the bear has even become a common nuisance, and no one now dares leave camp without everything edible being duly *cached*, for fear the bears, coyotes, ground-squirrels, and blue jays will loot the premises. The common black bear has a great penchant for bacon, and the first thing he snuffs out in a camp is the bacon-box. And in opening the box, or any other receptacle, his paws are almost as cunning as human hands. In fact, the ordinary black bear, next to the monkey, has more facility in manipulating provender than any animal in the kingdom. After watching one in the Yellowstone Park strip the meat from a ham-bone I came to the conclusion that his tooth and claw were equal to any hand and knife. It was an expert performance.

In the Minnesota days a cub-bear came to us one year as a present from Indian friends. The bear was not half-grown, having been run down and lassoed when its mother was shot. It grew up with the dogs, was adopted by the pack, ate with them, slept with them, played with them. Its chief love among the dogs was a small black-and-tan terrier which it dragged around the lawns by the scruff of the neck, much to the terrier's delight, though he howled over it and pretended to be having a bad time. The terrier was not big enough to retaliate in kind by dragging the bear, but, after being mauled for half an hour, he would run up on the back porch of the house and catch a cat by the back of the neck and drag it down the steps and half-way around the house before the cat could put in an effectual resistance. It was so plainly a case of taking it out on the cat that even the bear watched the performance with a half-grin around his mouth.

In winter all the dogs and the bear slept together in a huge box banked over with snow and entered by a swinging door. It was an amusing sight, when the evening was cold, to see the whole band shivering in a circle in the snow, waiting for the bear to go into the box first. As soon as he went in the pointer, setter, spaniel, and terrier

all made a rush in his rear and pushed him up against the cold side of the box, the terrier ensconcing himself between the bear's legs and the others crowding up against him as closely as possible. The bear never seemed to resent being made a weather-shield and back-warmer, even when he became full-grown. He was always good-natured except when it came to a matter of food. Occasionally the dogs would try to steal his allowance of provender, and then a fore-paw would shoot out and cuff a dog's ear in a way that caused howling. Unfortunately, his temper did not improve with age as did his appetite. He had a way of breaking into the corn-cribs on moonlight nights by tearing off the board strips. There he would paw over many bushels of corn, eat as much as he could, and go to sleep on what was left. Finally, he cuffed and bit the dogs so much that we had to give him back to the Indians.

The black bear is found almost everywhere west of the Mississippi, and I have seen and watched them often enough, but never had an inclination to shoot at one of them. They were too playful, too good-natured, too intelligent! And to what purpose the shooting? Bear-meat

is about the rankest and greasiest food imaginable, and in the summer the hide is next to worthless. I have always preferred them living in the woods to dead and spread upon a drawing-room floor. They belong in the woods, are a part of it, fit into it perfectly, and add to it immensely—that is, if you are fortunate enough to see them there, off guard and playing.

One day, in the Fraser River country, I was lying on a high flat rock eating my luncheon after a morning's fishing, when down to the stream, within thirty yards of me, came a black bear, quite unconscious of my existence. He looked about, walked up and down the shore-line, put his paw in the water and then licked the water off his paw. Presently he walked out on a tree-trunk lying in the stream, lay down on the trunk, and paddled in the water with both paws. Then he went back to the shore-line, waded along the brook, overturned with his paws huge boulders in the water, and snuffed at the shells on the bottom of them. Not satisfied with his water exploration, he began turning over boulders on the shore. Something darted away from under one boulder—what it was I could not see—but I was amazed at the swiftness with which the bear

rushed and struck at it. Evidently it eluded him and got into the water, for he gave up the stone-rolling and began patrolling the shore. Just then some scent from me must have come to him, for he jumped quickly and dashed into the wood at a stiff gallop.

No sign or footprint of a grizzly ever came to me in the Fraser River country, though the Columbian Rockies and foot-hills thereabouts are haunts of the silver-tip. Mexicans and Californians insist that the silver-tip is not a grizzly, and that the only Simon-pure grizzly lives (or once lived) in the lower Coast Range on the edge of the deserts. Doubtless the silver-tip is of the grizzly family, though not so ferocious as the one-time Southern bear. Many of them that hang about the hotel garbage-heaps in the national parks have become quite tame. Also they have grown quite fat, heavy, and clumsy. They are agile enough when they have to pick a living in the open. And many of those in the Big Horn Mountains are huge enough in size to give the hunter a shock at first sight. The mere flattened-down print of a silver-tip's paw in the dust has been known to excite nervousness in the beholder. But they are no more to be feared than the black

bear. They will not fight unless at bay and compelled to defend themselves.

In this respect they are somewhat different from the Sonora or Southern California grizzly —perhaps at one time the most dangerous beast on the western continent. He no longer exists, except in story. The stories are probably not exaggerated. They are all founded on his great strength and swiftness. On the Sonora ranches I have heard from Yaki Indians that same tale, told fifty years ago in Southern California, of the grizzly in old Spanish days—how they caught old Ephraim in a trap and how, at the grand *fiesta* of the Corpus Christi, they tied him up heel and heel with the wildest bull in the country and then turned both of them loose. The stories all agreed that the grizzly instantly clapped one paw over the bull's nose and with a quick wrench twisted and broke his neck before ever the bull could get his head down.

There is no doubt about the grizzly's ability to do that very thing. A blow of his paw has been known to crush a man's skull like so much egg-shell. No animal could cope with him. And yet his strength was sometimes his weakness. Many years ago, after a cloudburst in the San

Bernardino Mountains, one of the swollen canyon rivers brought down a huge grizzly that had evidently presumed on his strength in swimming the stream, and had been swept off his feet and drowned in the torrent. He weighed a thousand pounds—so the tale ran. All grizzlies in story weigh at least a thousand pounds.

I never saw but one on his native heath, and he looked to me as though he might weigh two or three tons—long tons at that. He was the biggest beast I ever saw. I was moving through some chaparral in the desert mountains, following a dim, half-broken deer trail, watching the ground for hoof-marks, seeing the paws of wolves over the tracks of the deer, wondering what those foolish wolves were thinking about in following so close upon the trail when the deer were always watching their back track. Presently, in looking up, I saw, not fifty yards away, an enormous grizzly standing on his hind legs and pawing down the little apples from a manzanita. I was well-equipped with a thirty-thirty rifle that I could depend upon, and I instantly brought it to my shoulder.

I saw the butt of the bear's ear through the sights—can see it yet. But just then a puff of

wind came in my face. The wind was blowing from him to me. He did not smell me. Neither did he see me or hear me. I was high up in the mountains, far removed from any human habitation, and I had no need for either bear-meat or bear-hide. It occurred to me very vividly, and with astonishing mental rapidity, that if I did not get into his ear and brain with the first shot, he would have my hide. I knew a shot through the heart would not stop him at once, not for ten minutes, and in that time he could tear me into small strips. The chaparral was dense. He could smash through it and I could not. I would be caught like a fly in a web. I lowered my rifle, backed out as noiselessly as I came, and left Ephraim to his idols—the manzanitas. I never regretted my discretion, and never told about seeing the bear. I hope he lived many years and was in death a credit to the grizzly family.

The grizzly was always secure in the mountain chaparral. No man or dog dared follow him into that dry-stick thicket. Hunger alone brought him out, and through hunger he fell a victim to poison and soft-nosed bullets, until now his kind has ceased to exist. Occasionally one still sees his hide stretched upon a floor and hears, of winter

nights, the embroidered tales of his ferocity, swiftness, and strength; and of the great fight he gave his conqueror. But is there no other tale than that to be told of him and of his kind? Might it not be said in passing that all life in the open endures without flinching, and that in the end it dies in silence? What soft-nosed bullet ever got a groan out of a grizzly, or a whimper out of a wolf? What desert beast or bird or insect makes a cry when brought face to face with death?

By way of contrast it must have been observed that domestic animals can usually give tongue with the first approach of danger. A dog howls even before being hit, cattle and sheep bawl with fear; and even a horse, when badly frightened, will scream. As for man, the mighty destroyer, when danger or pain comes his way he can give forth a cry that is blood-curdling—the most terror-stricken cry of any animal in the kingdom. The cry of the human becomes more intense, more fear-laden, more soul-piercing, as you come nearer to the higher and more refined strata of civilization. The Indian in warfare, in torture, in death, makes no sound; his lips are sealed and his face is immobile. Mere animal endurance, you will say. But would not humanity be the

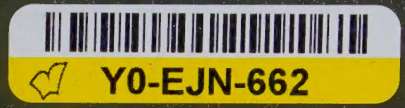
better if it should emulate the Indian in silent acceptance of the inevitable? Was there ever any hope or help in the cry?

How does it happen that the life of the open accepts the order of nature so unprotestingly and goes its way to death without a sound, while the life of the city shudders and screams at the bare prospect? Is not each, in measure, the product of its environment, and has not each been partly fashioned by its surroundings? Had man always lived in the open and maintained a healthy animalism, he would perhaps have been better advised. He was born and equipped as an excellent animal, but he sold his birthright for a mess of pottage called culture and took on fear and a whimper as a part of the bargain.

Will he always be able to live up to his bargain, holding himself above and superior to nature? Culture is something that requires teaching anew to each generation. Nature will not perpetuate it by inheritance. On the contrary, animalism is her initial endowment; it has been born and bred in the bone since the world began. Man cannot escape it if he would. Will not Nature in her own time and way bring man back to the earth? And will not the race eventually be the

better for a regeneration in the open, in the free air, under the blue sky?

Antæus was a son of Poseidon, a mighty wrestler whose strength was invincible so long as he remained in contact with his mother Earth. Heracles, discovering the secret of his strength, lifted him from the ground and crushed him in the air.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